

FIG. 1

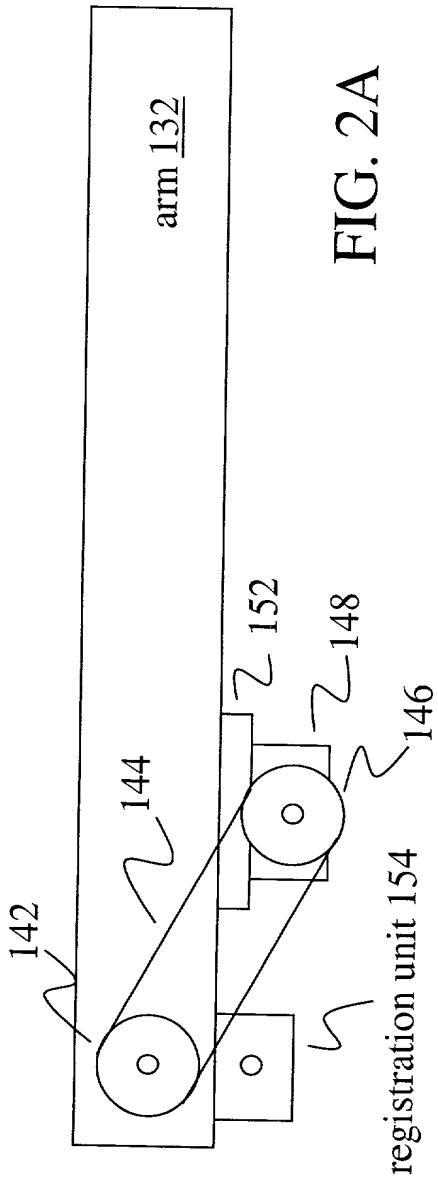


FIG. 2A

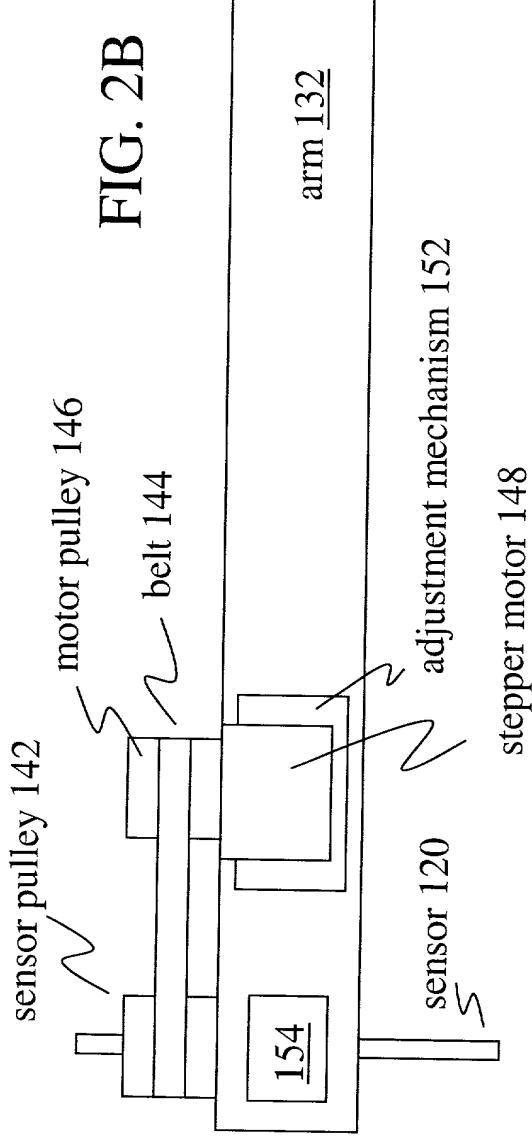


FIG. 2B

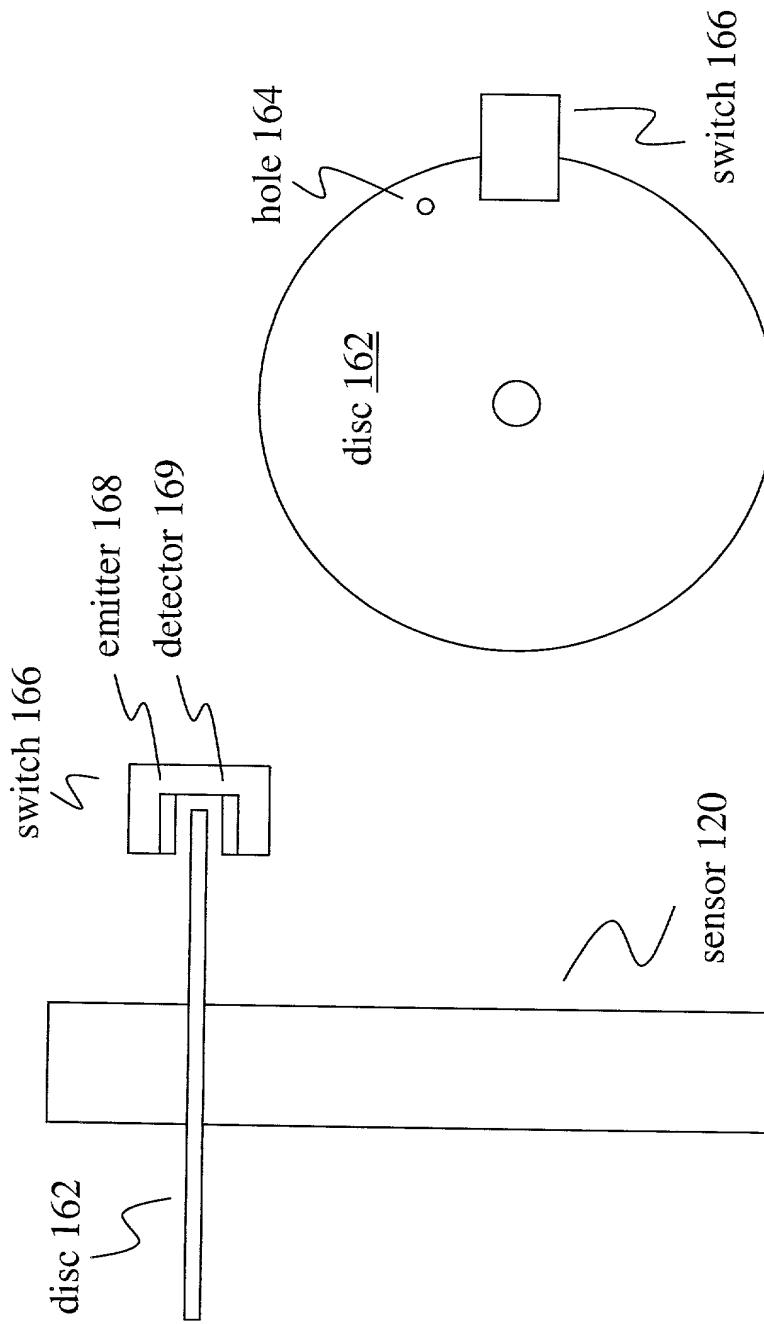


FIG. 3A

FIG. 3B

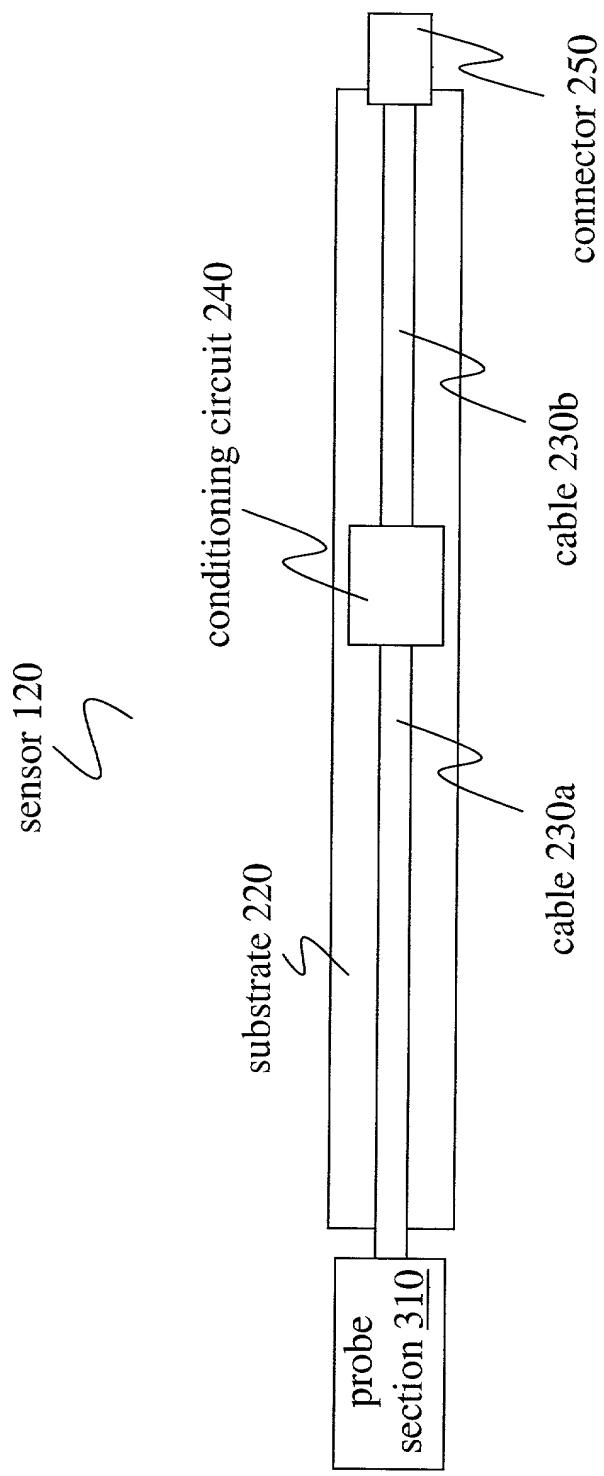


FIG. 4

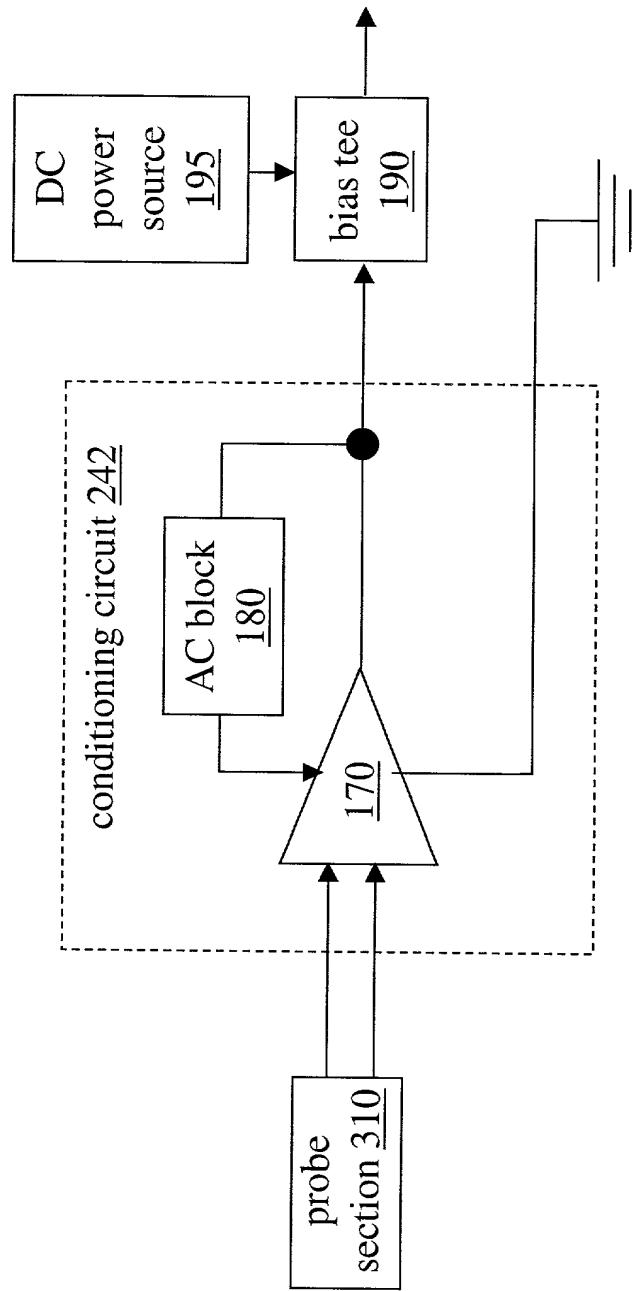


FIG. 5

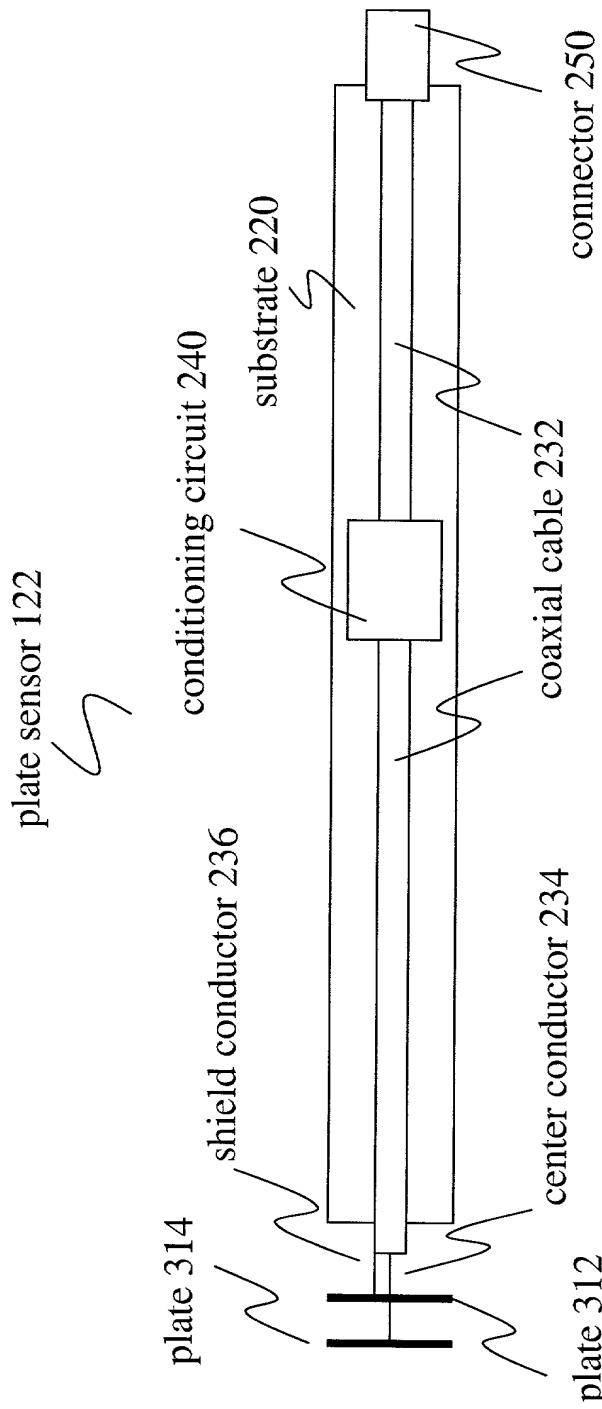
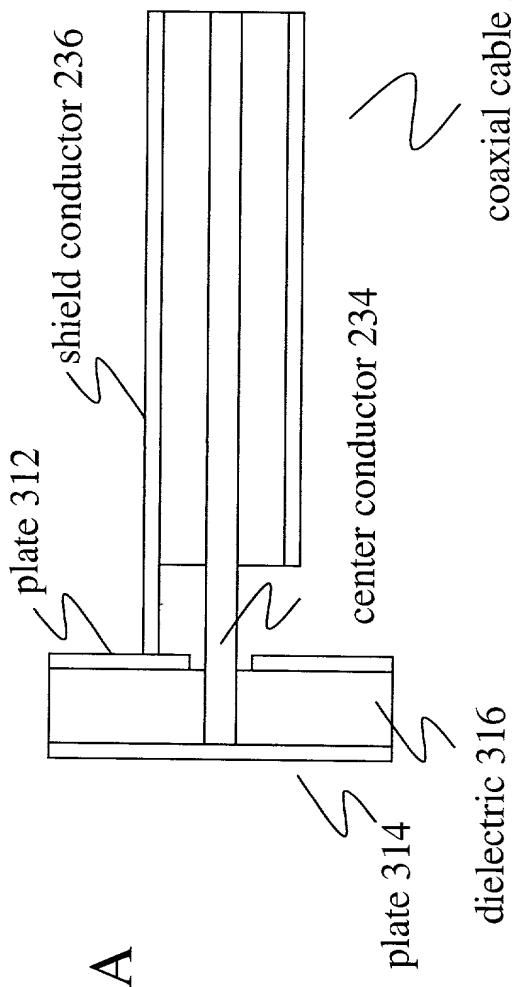


FIG. 6

FIG. 7A



coaxial cable 232

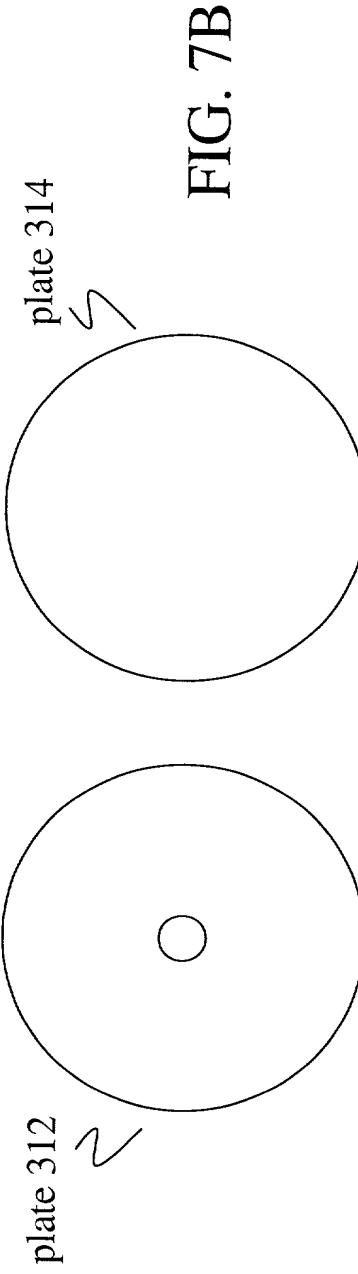
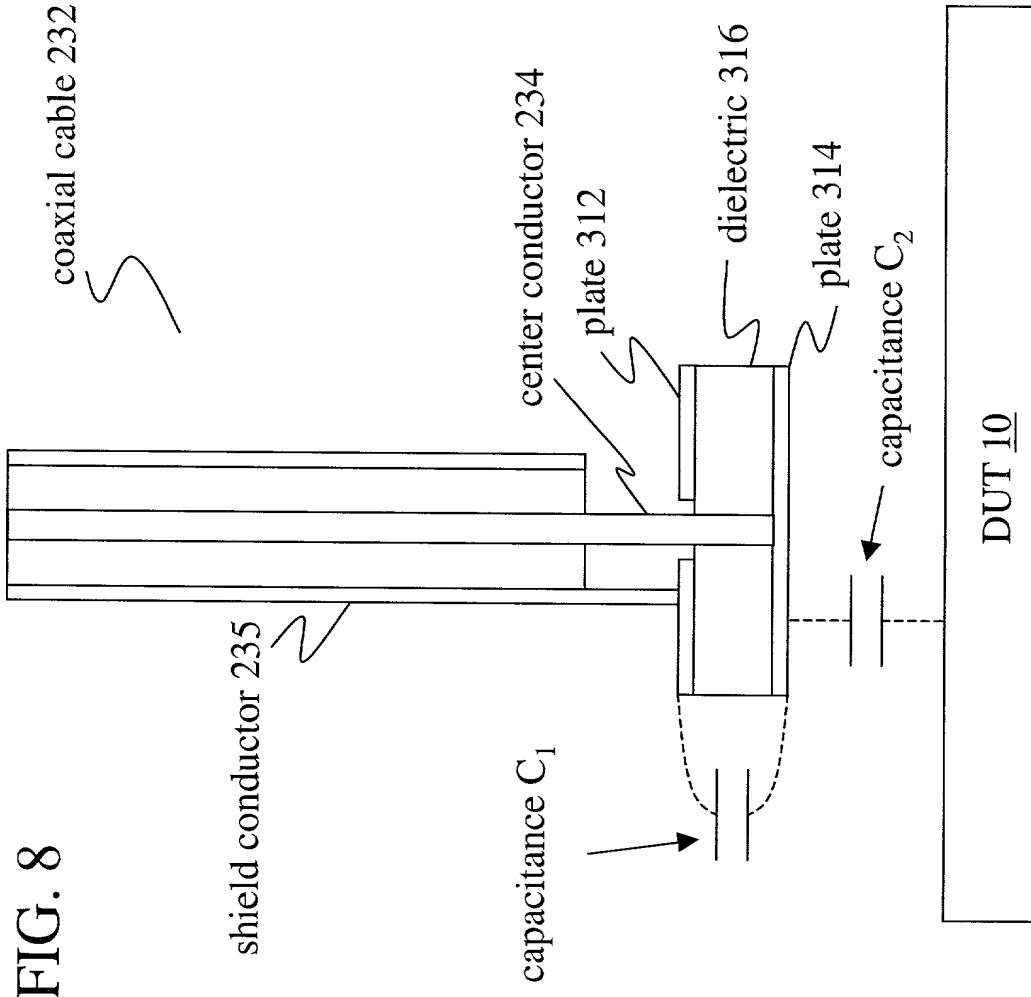


FIG. 7B

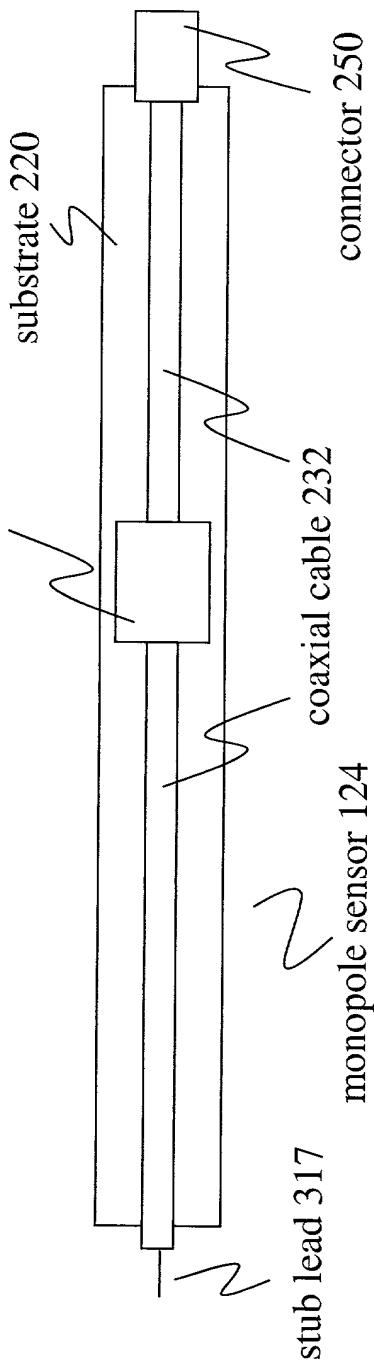
FIG. 8



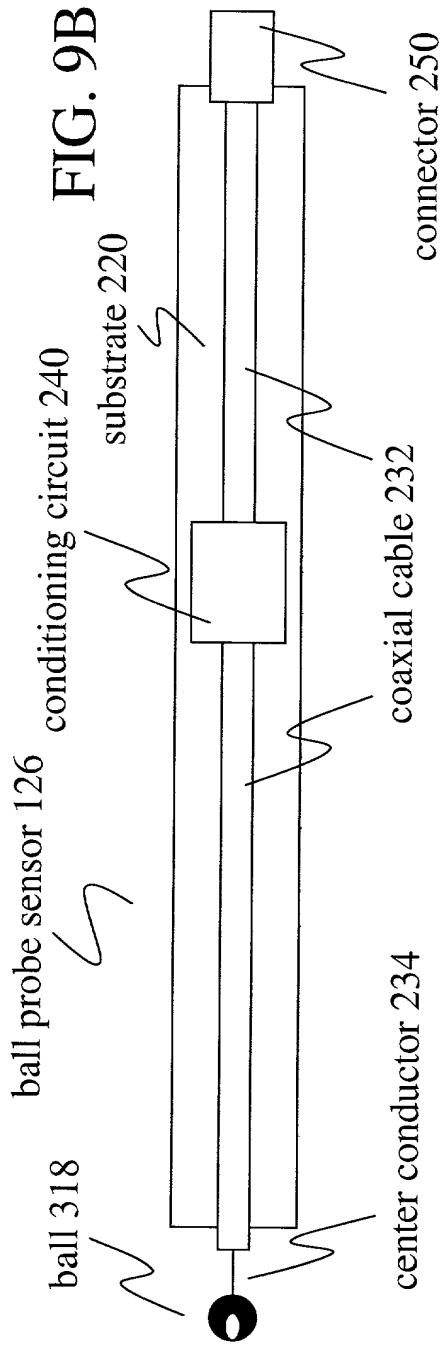
**FIG. 9A**

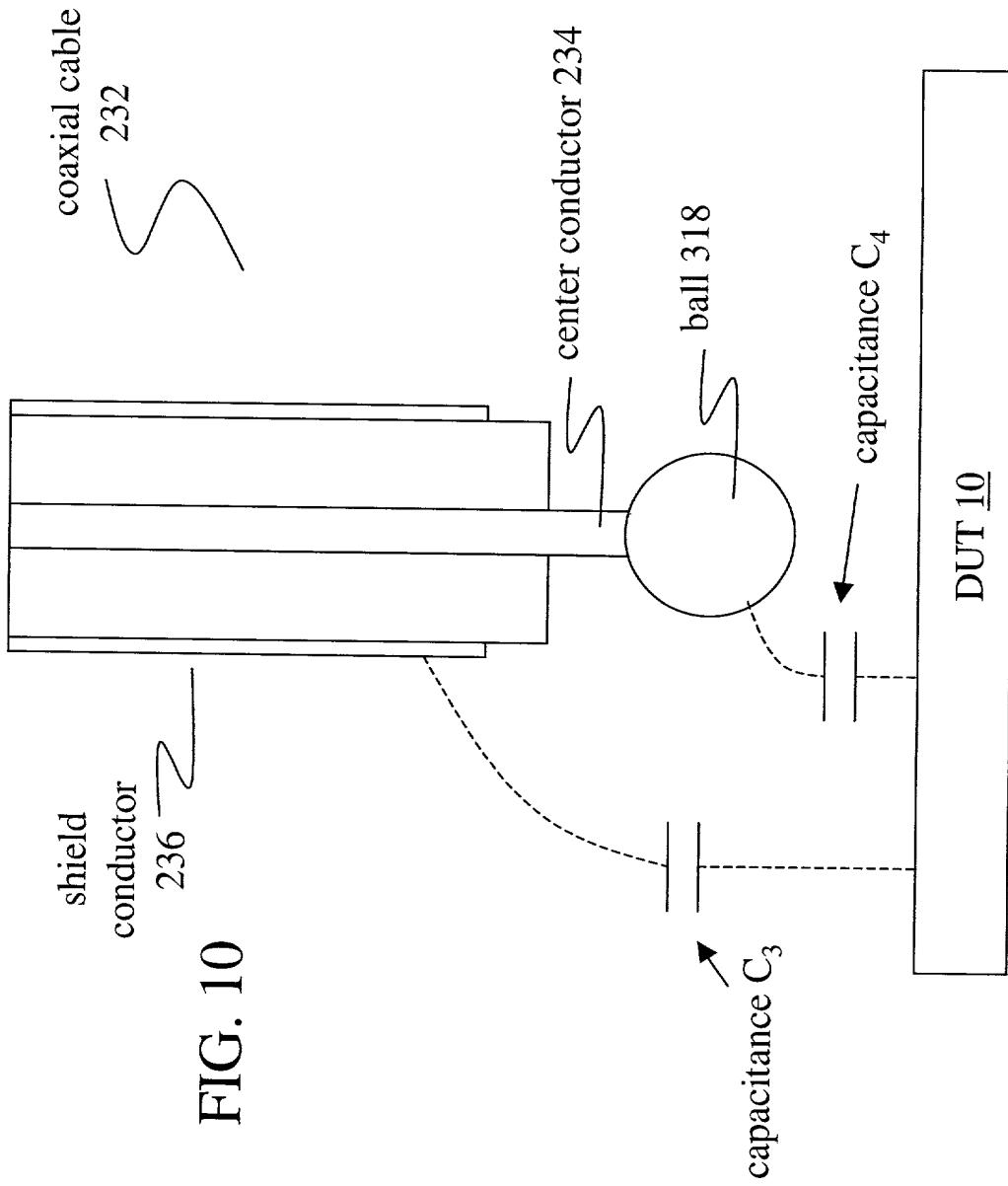
conditioning circuit 240

substrate 220



ball 318 ball probe sensor 126 conditioning circuit 240 FIG. 9B  
substrate 220





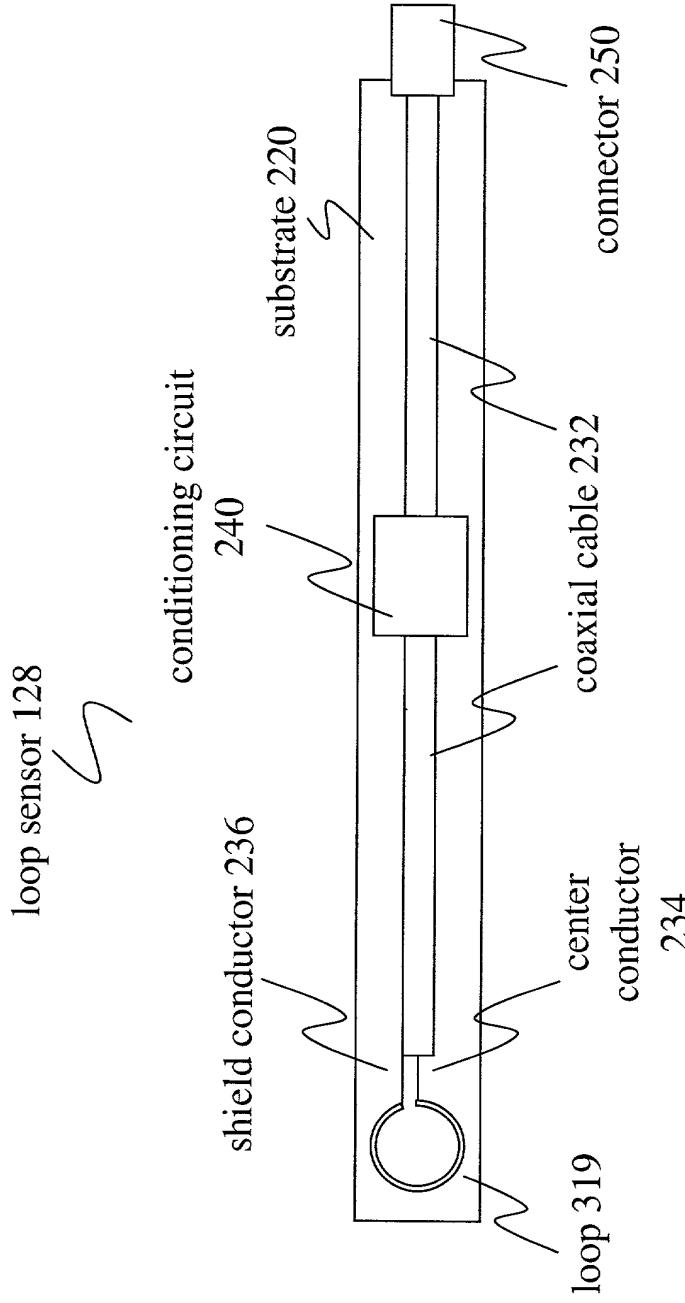


FIG. 11

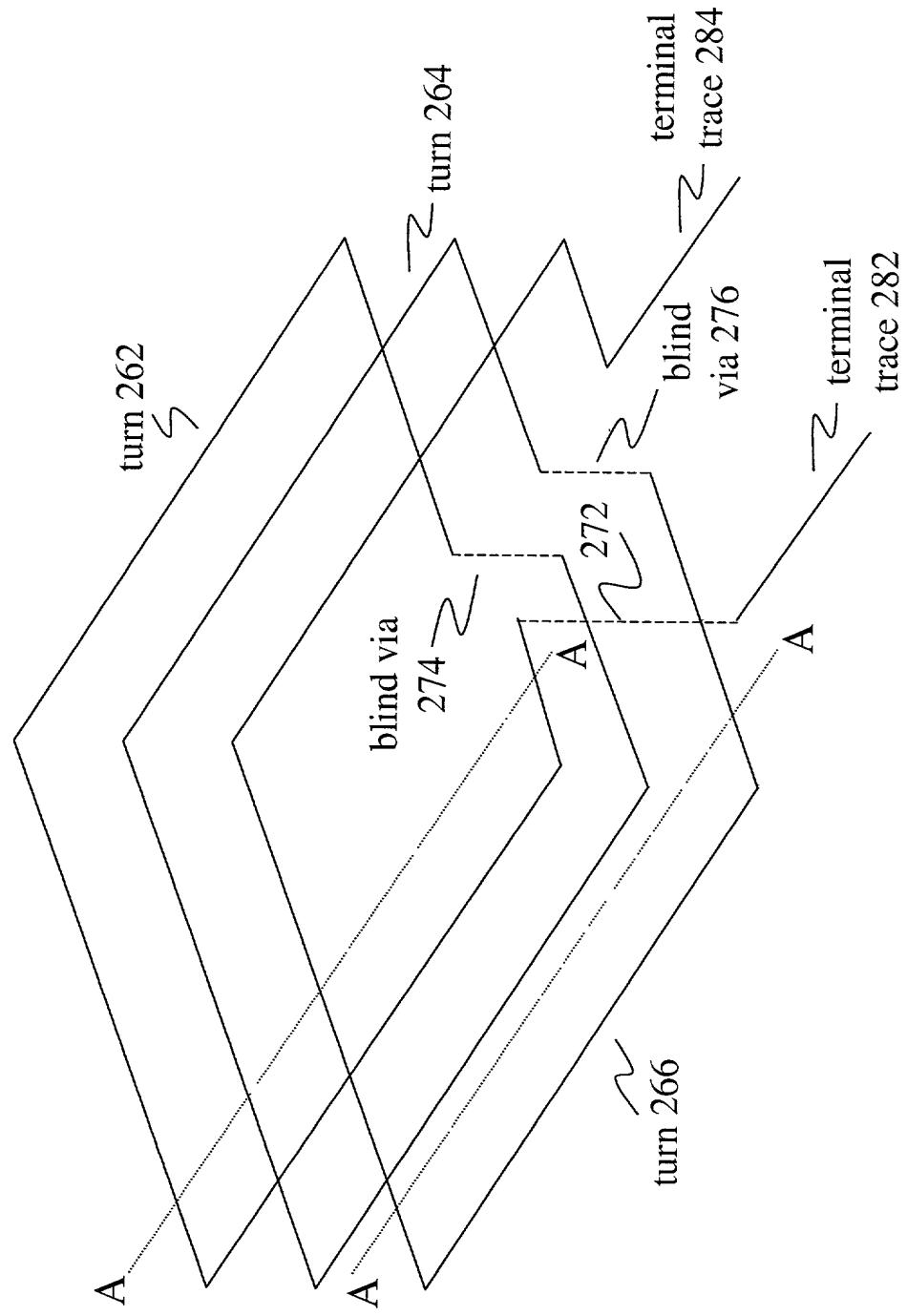


FIG. 12

interlayer insulator 290

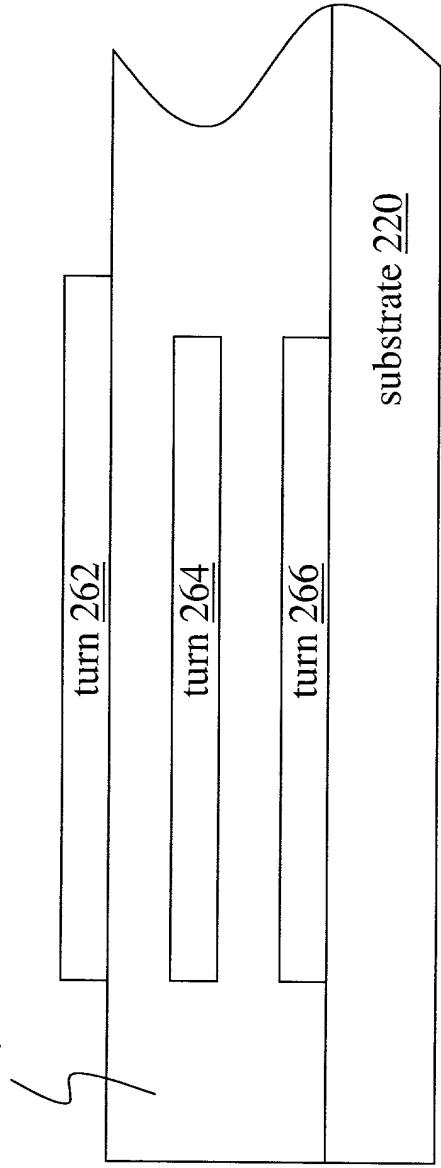


FIG. 13

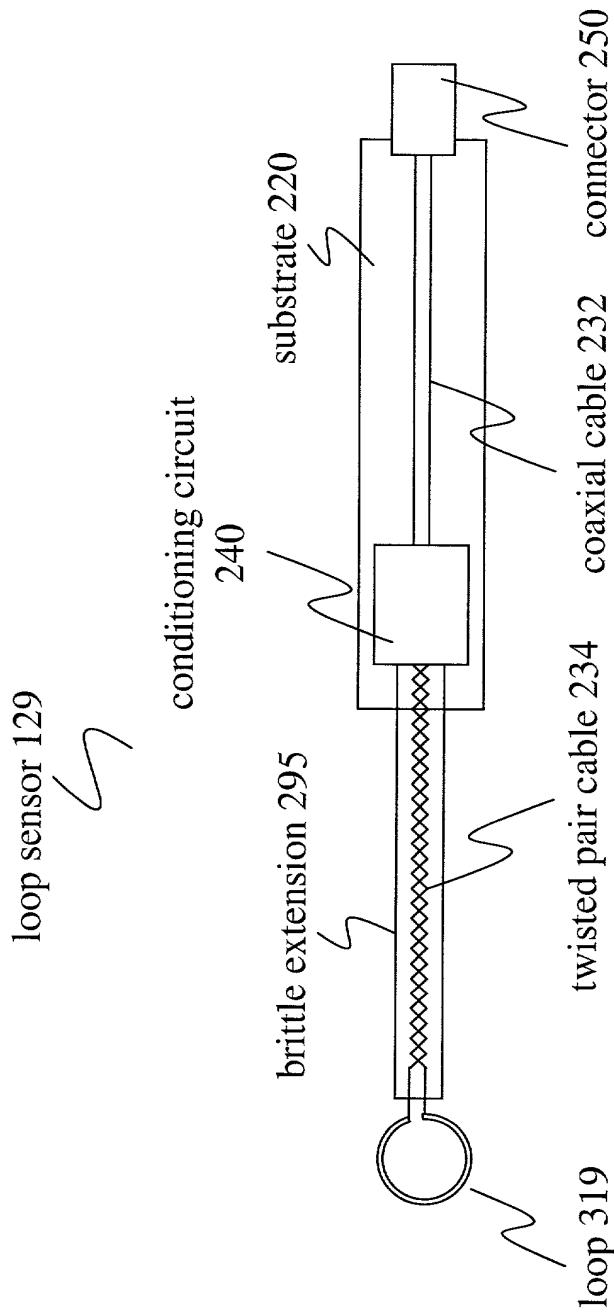


FIG. 14

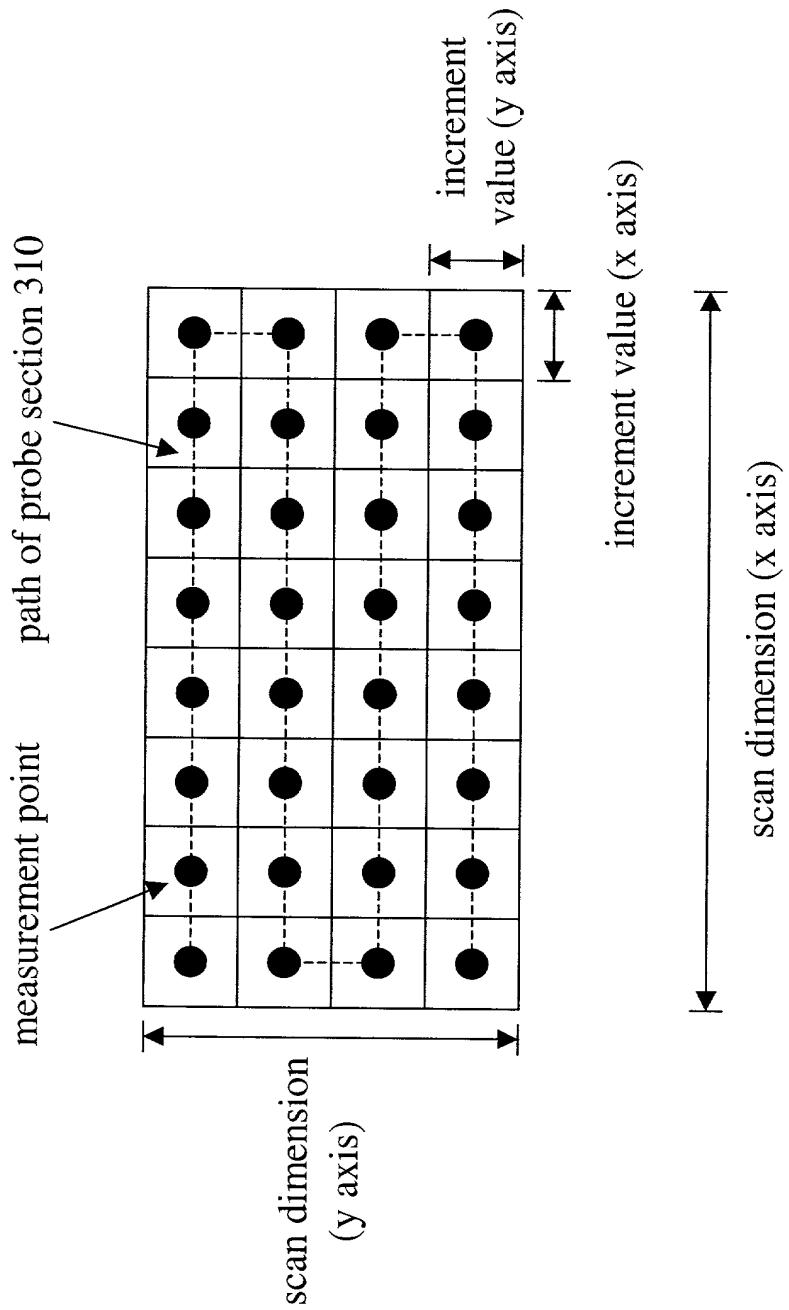


FIG. 15

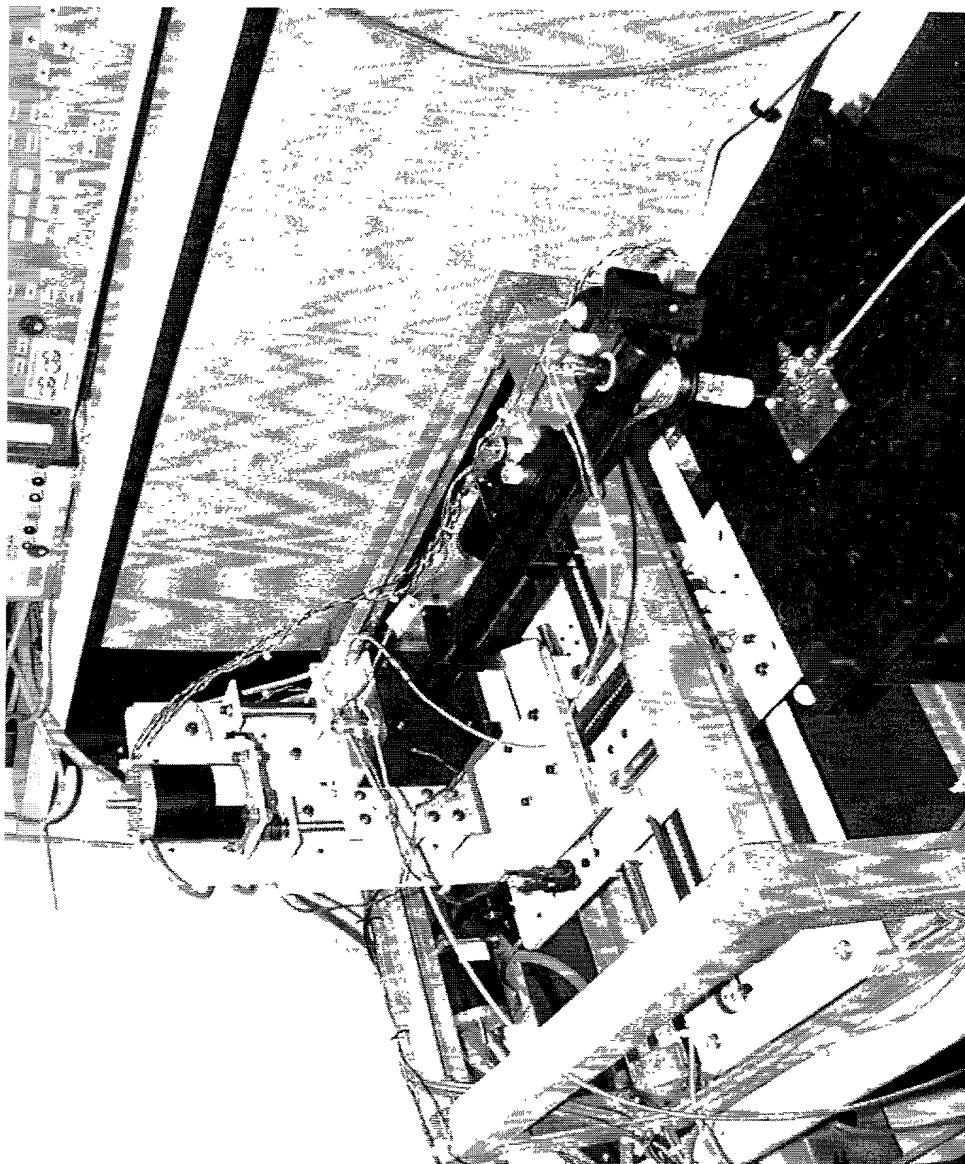


FIG. 16

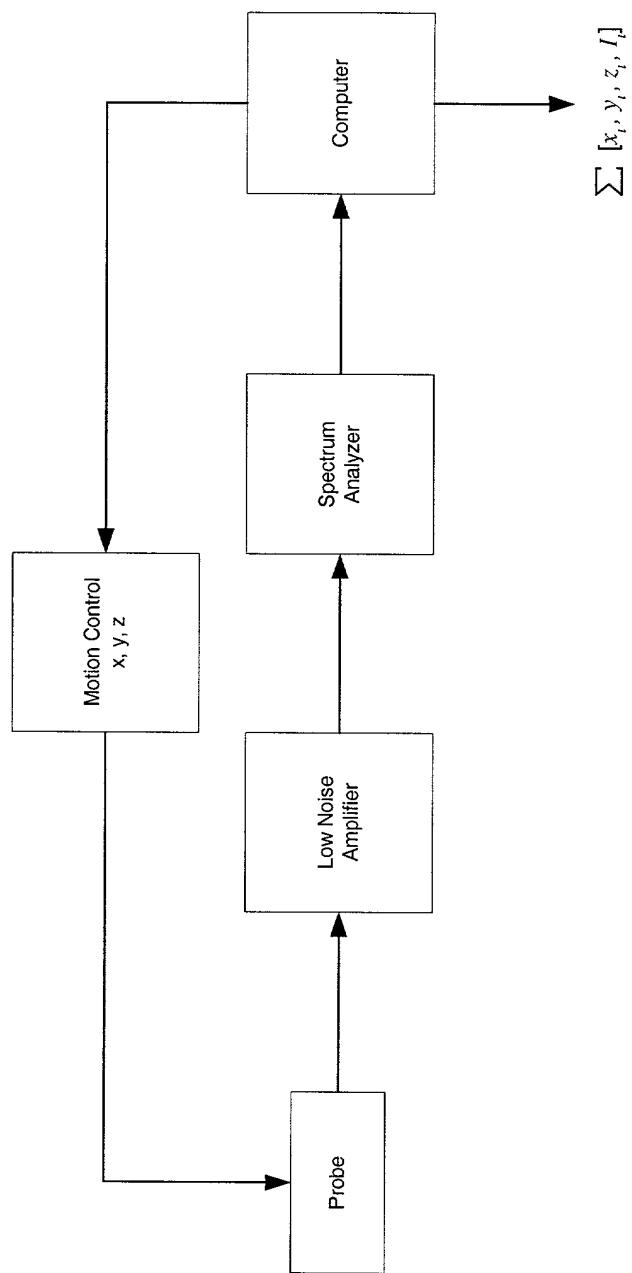
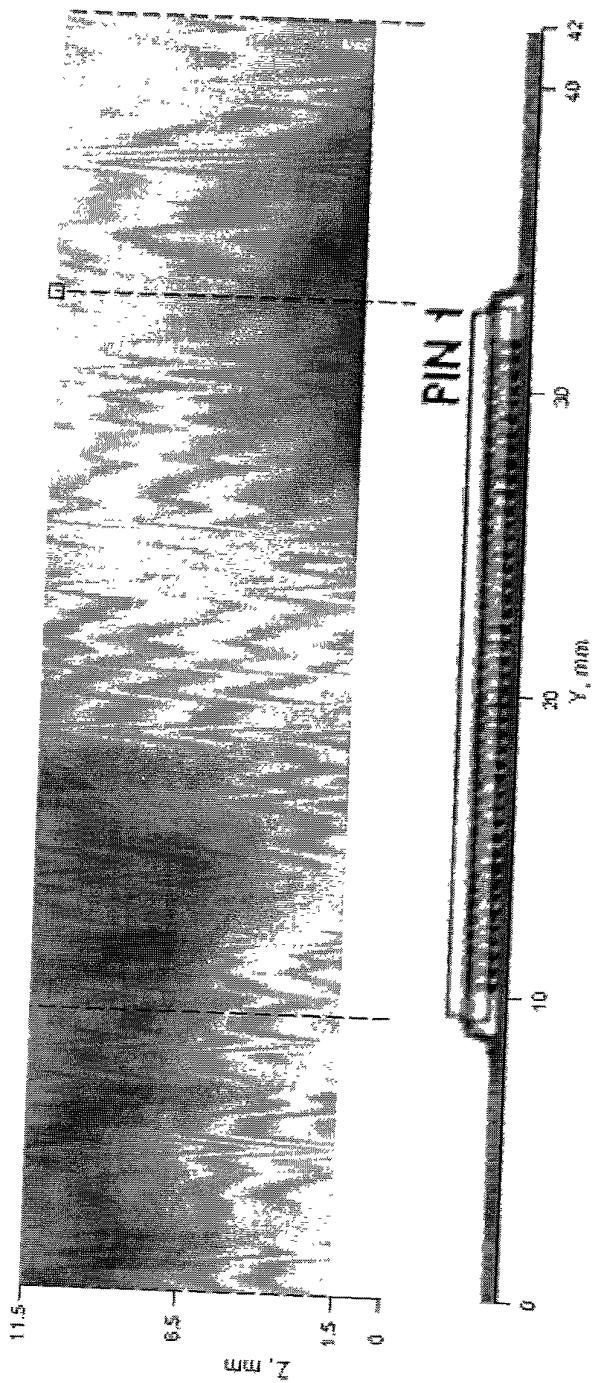


FIG. 17

FIG. 18



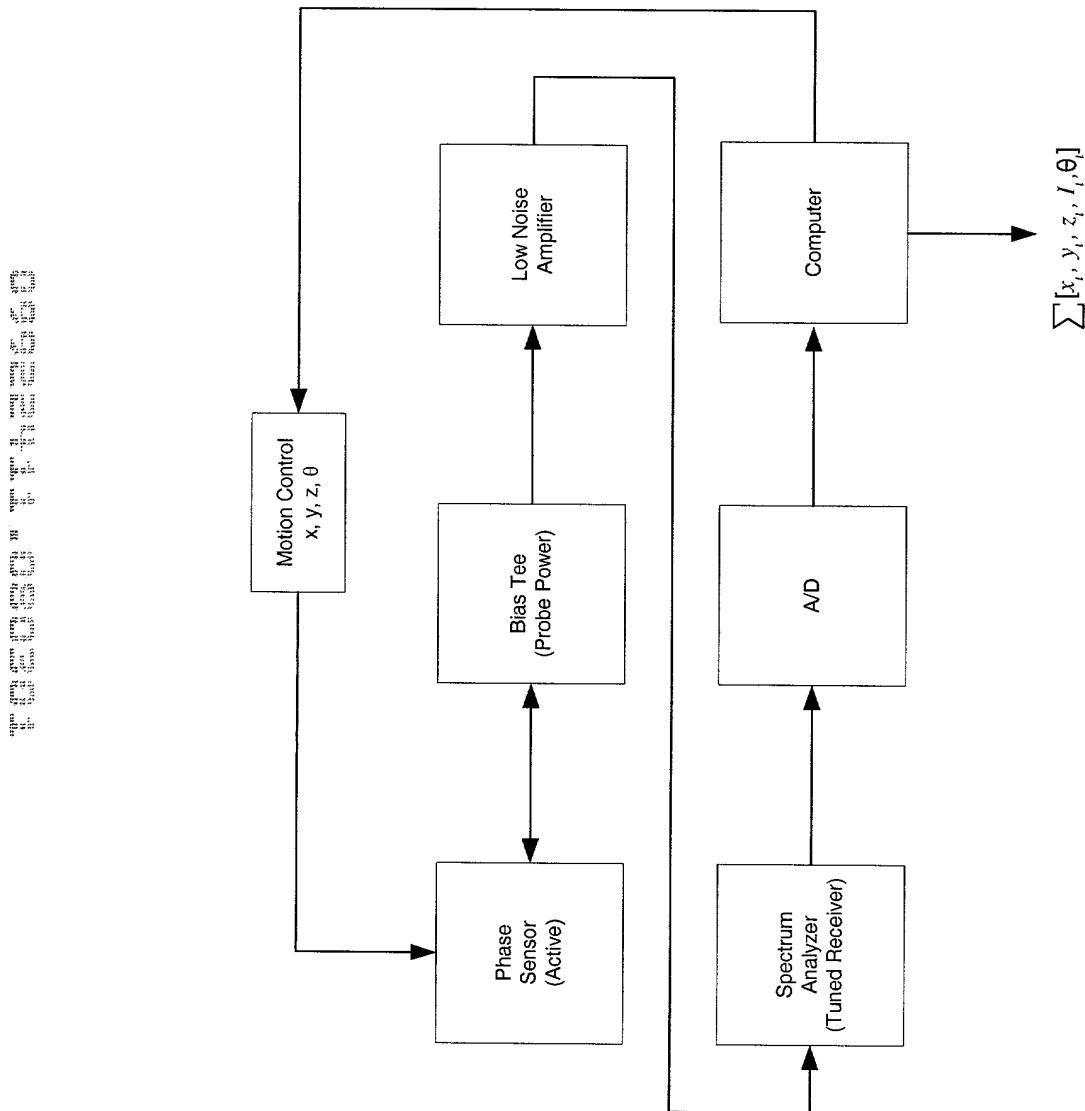
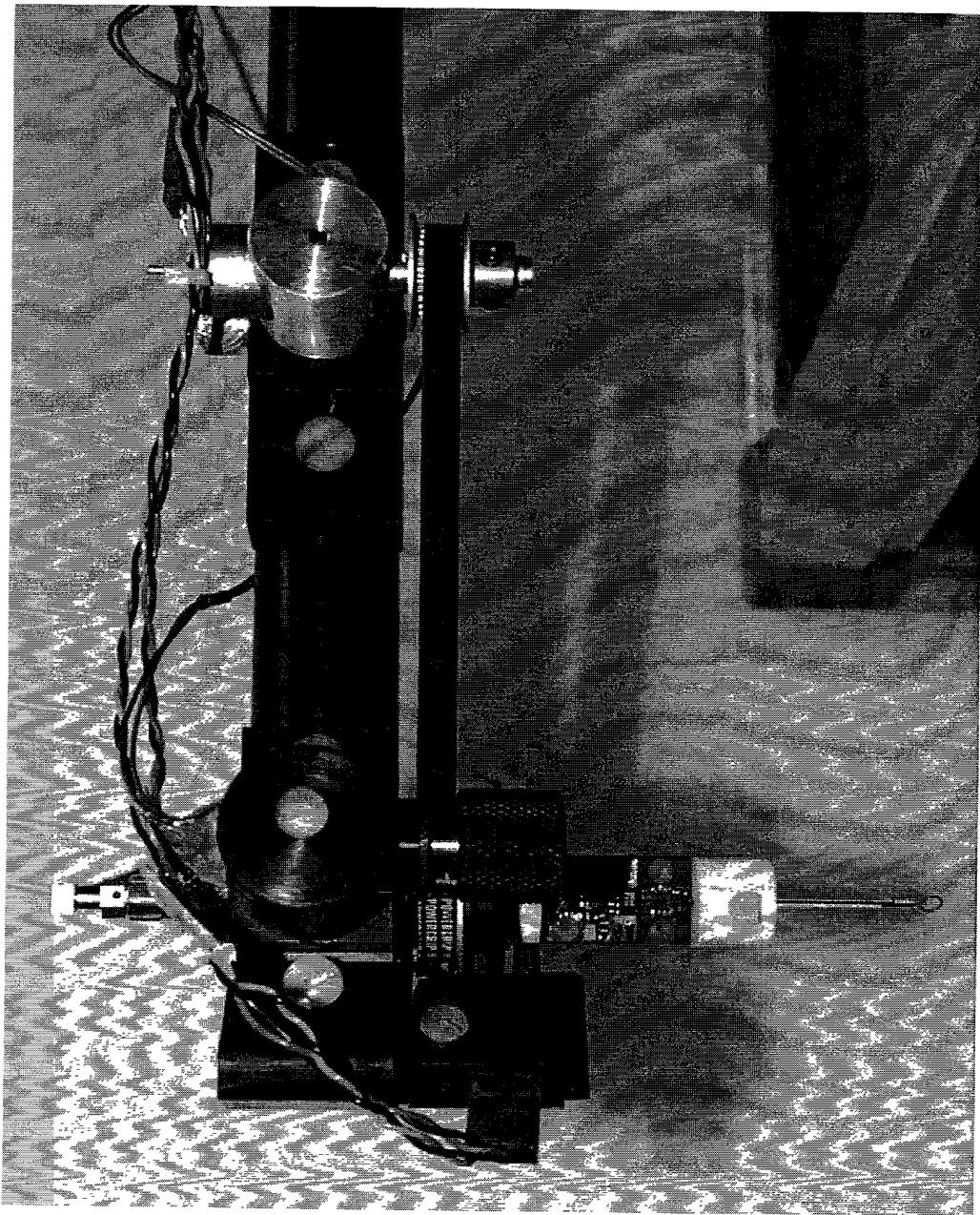


FIG. 19

FIG. 20



11/16/99 - Micro stripline is terminated in 50 ohms. Frequency: 1000 MHz  
Probe Type: Magnetic Field. Measurement Increments: dx: 1.94 mm, dy: 1.97 mm, dz: 0 mm  
Number of Planes: 1, at 14.52 mm above DUT. Magnetic Field Intensity Unit dB uA/m.

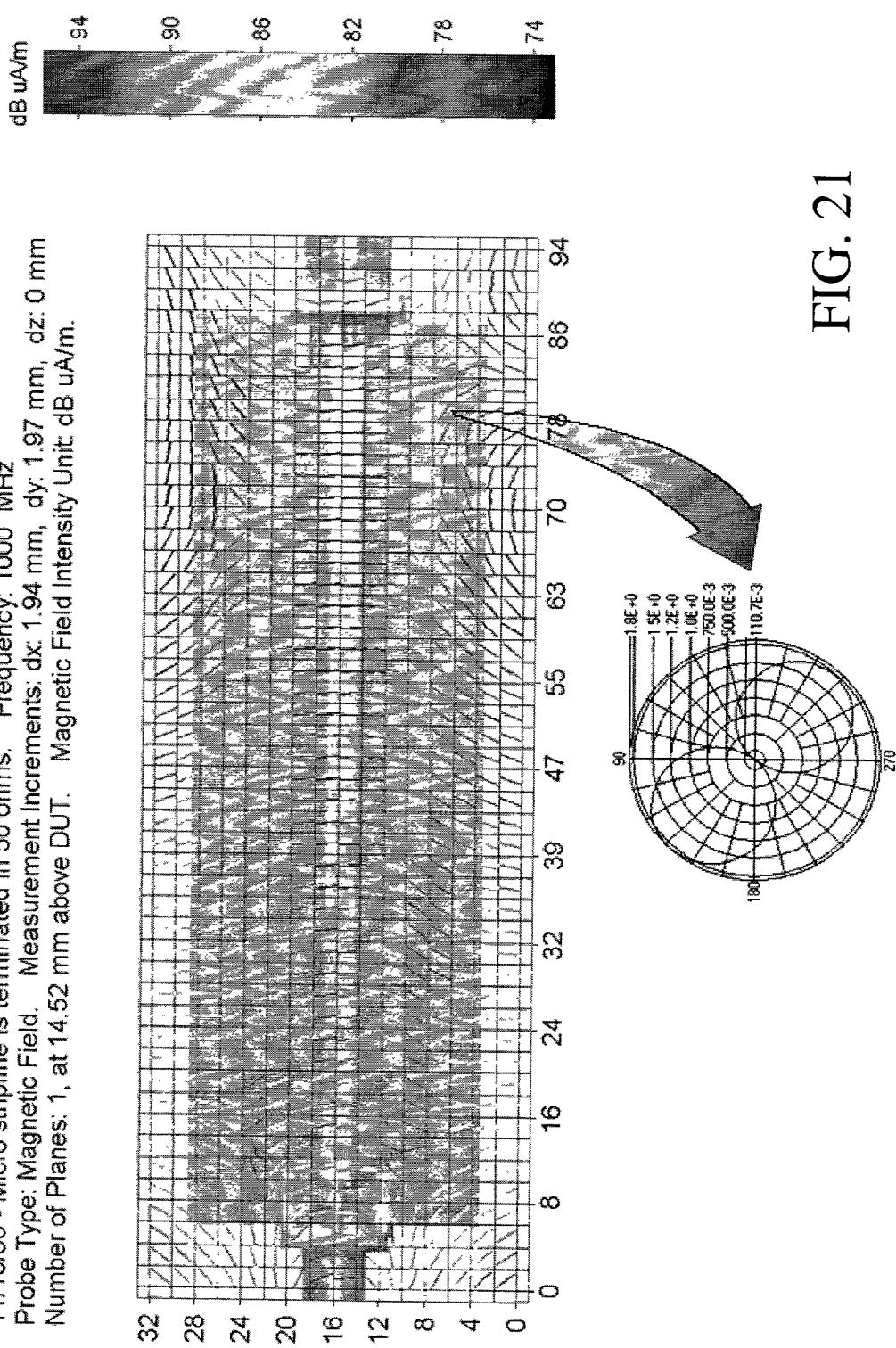


FIG. 21

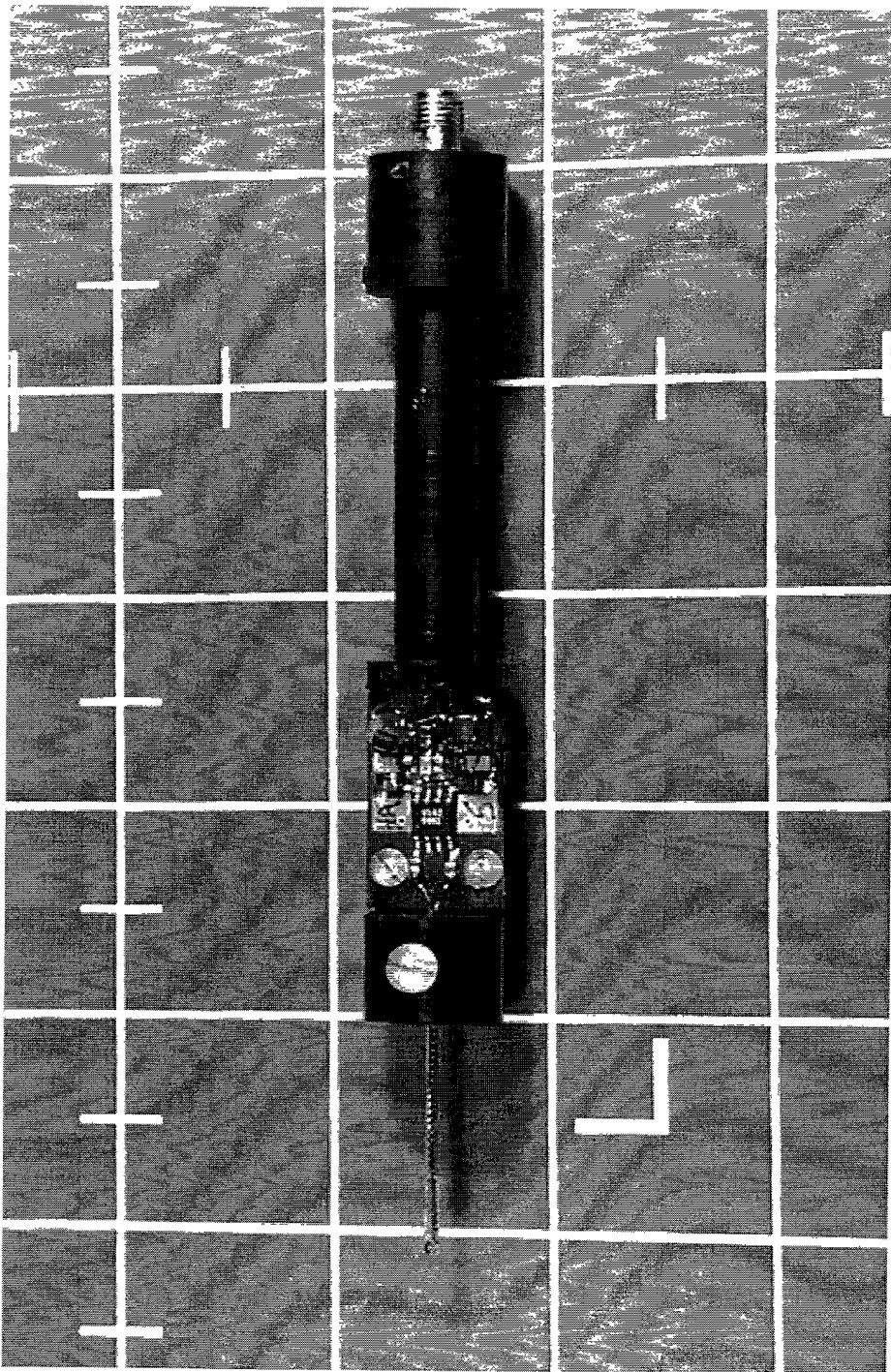


FIG. 22

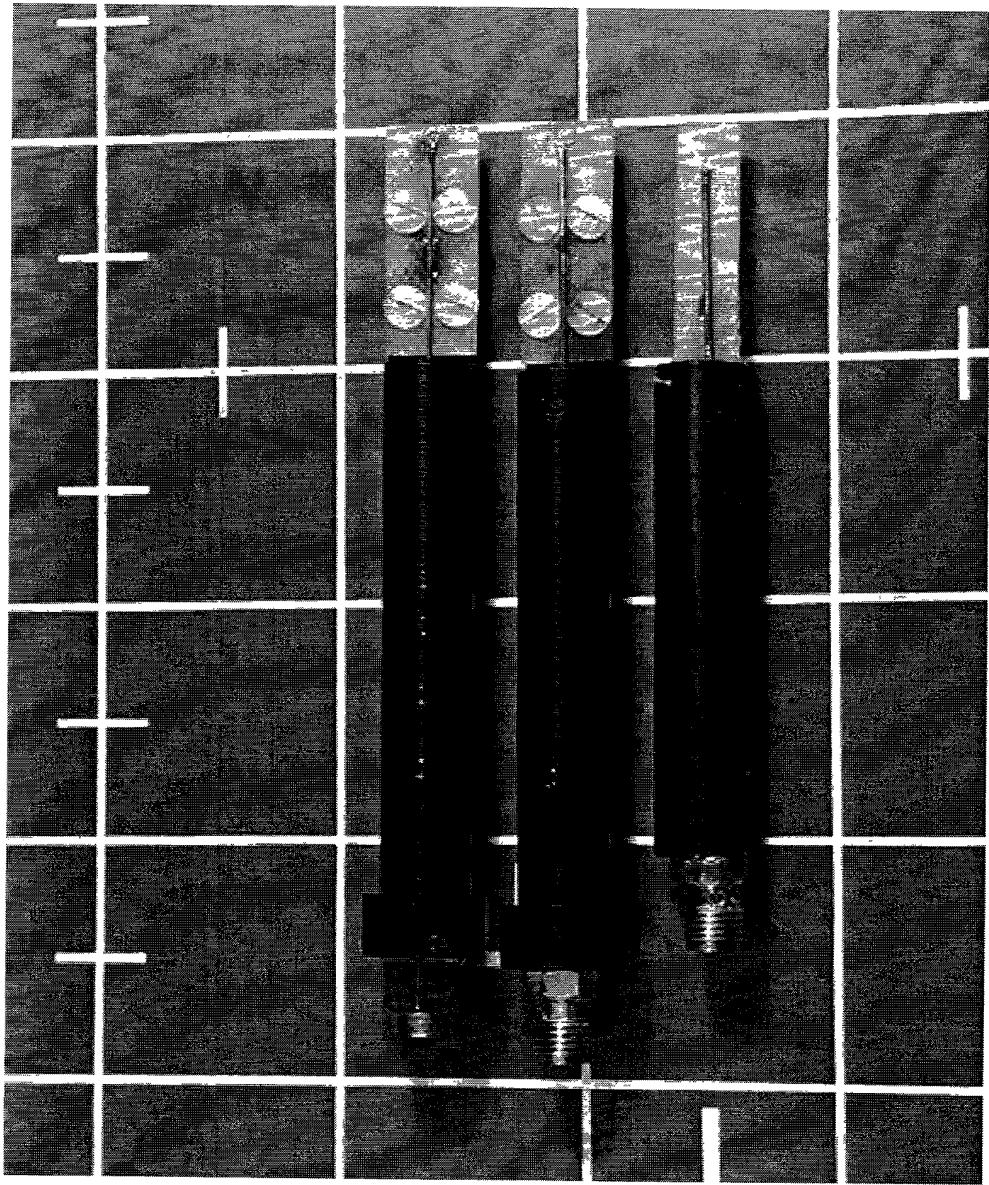


FIG. 23

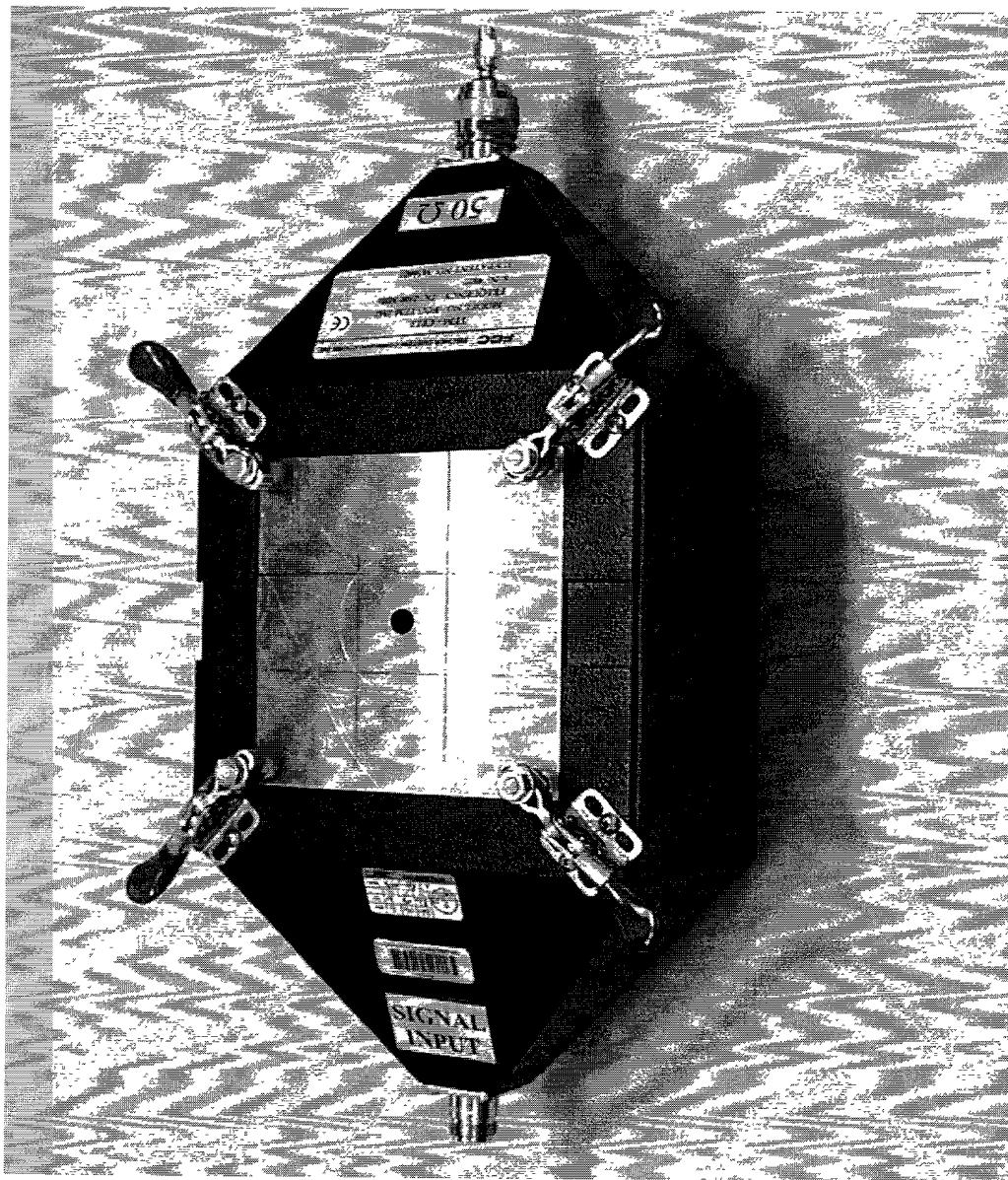


FIG. 24

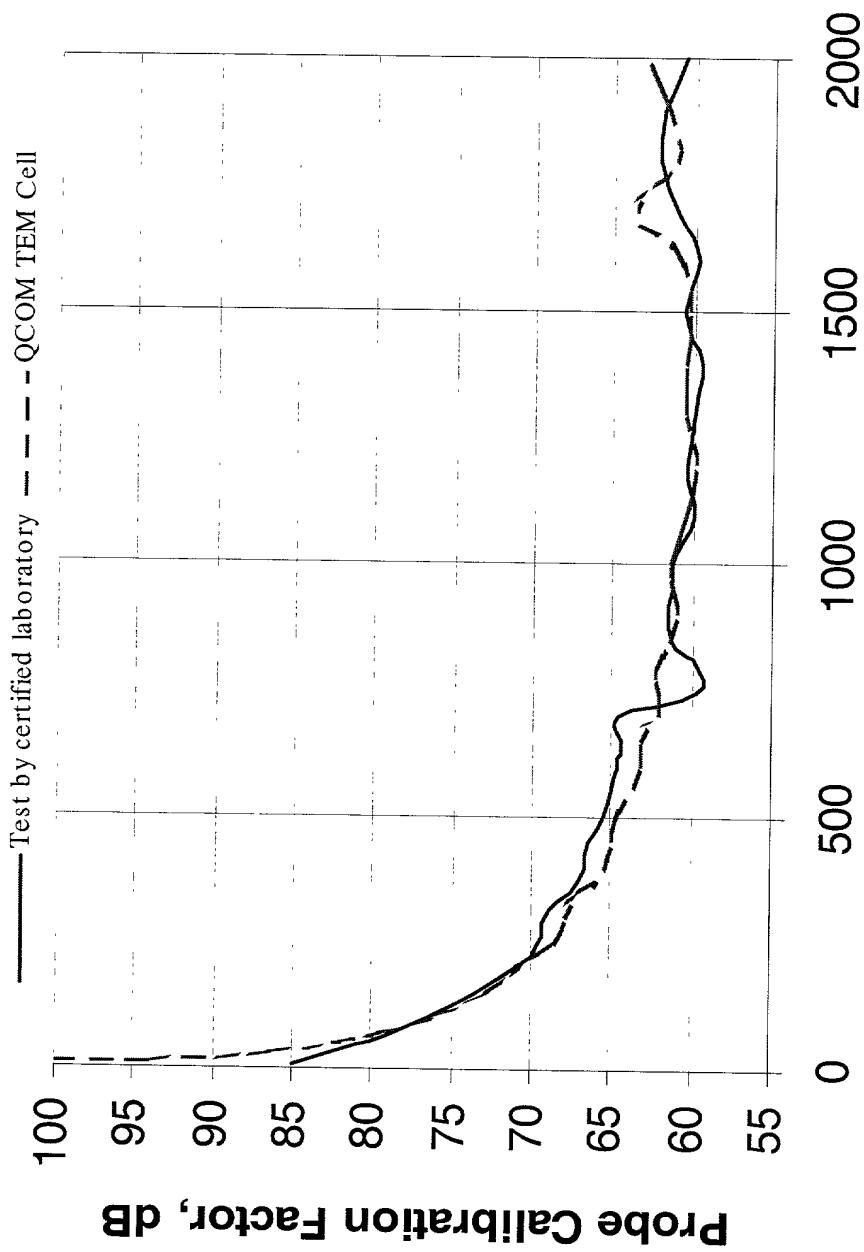


FIG. 25

FIG. 26

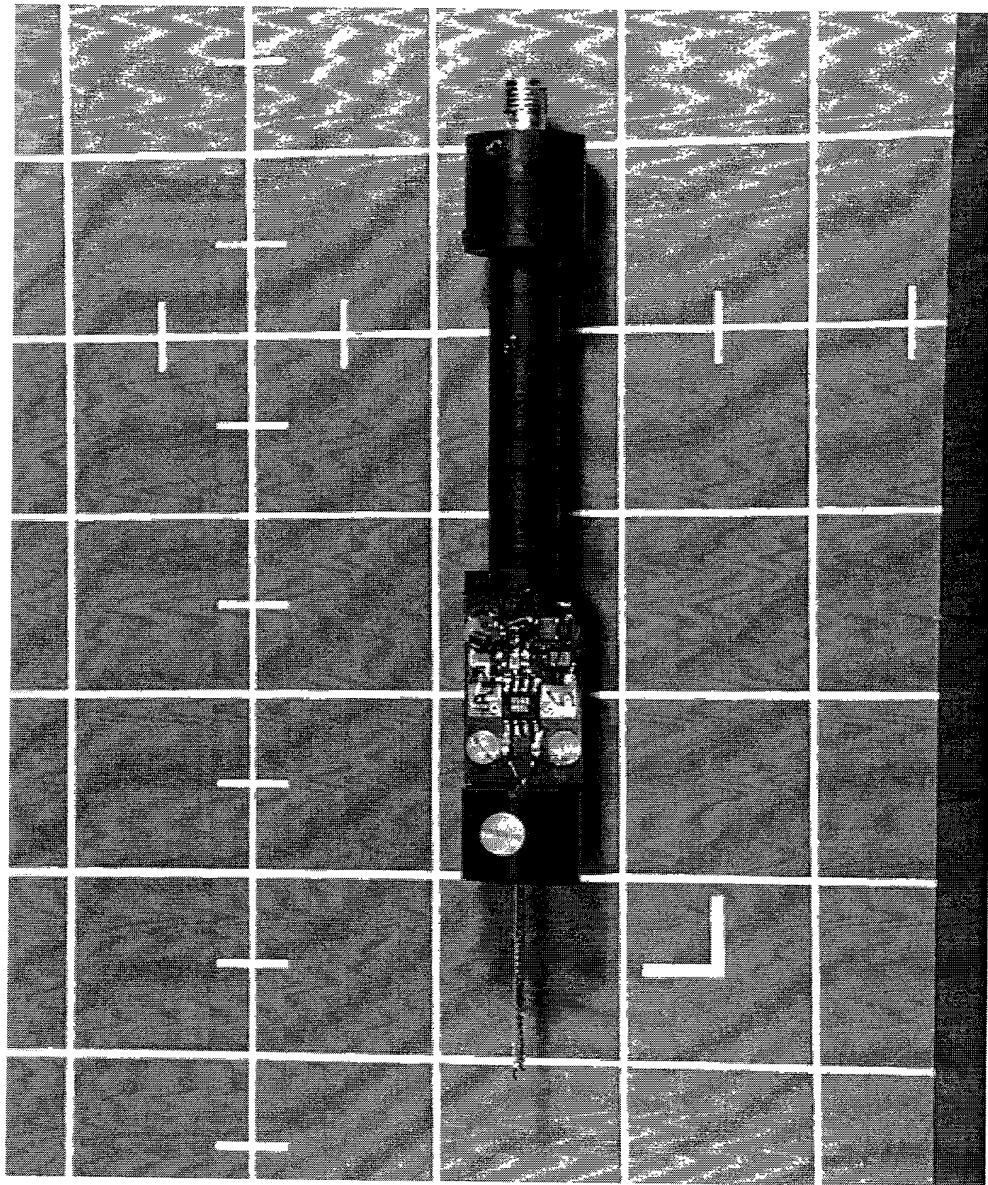
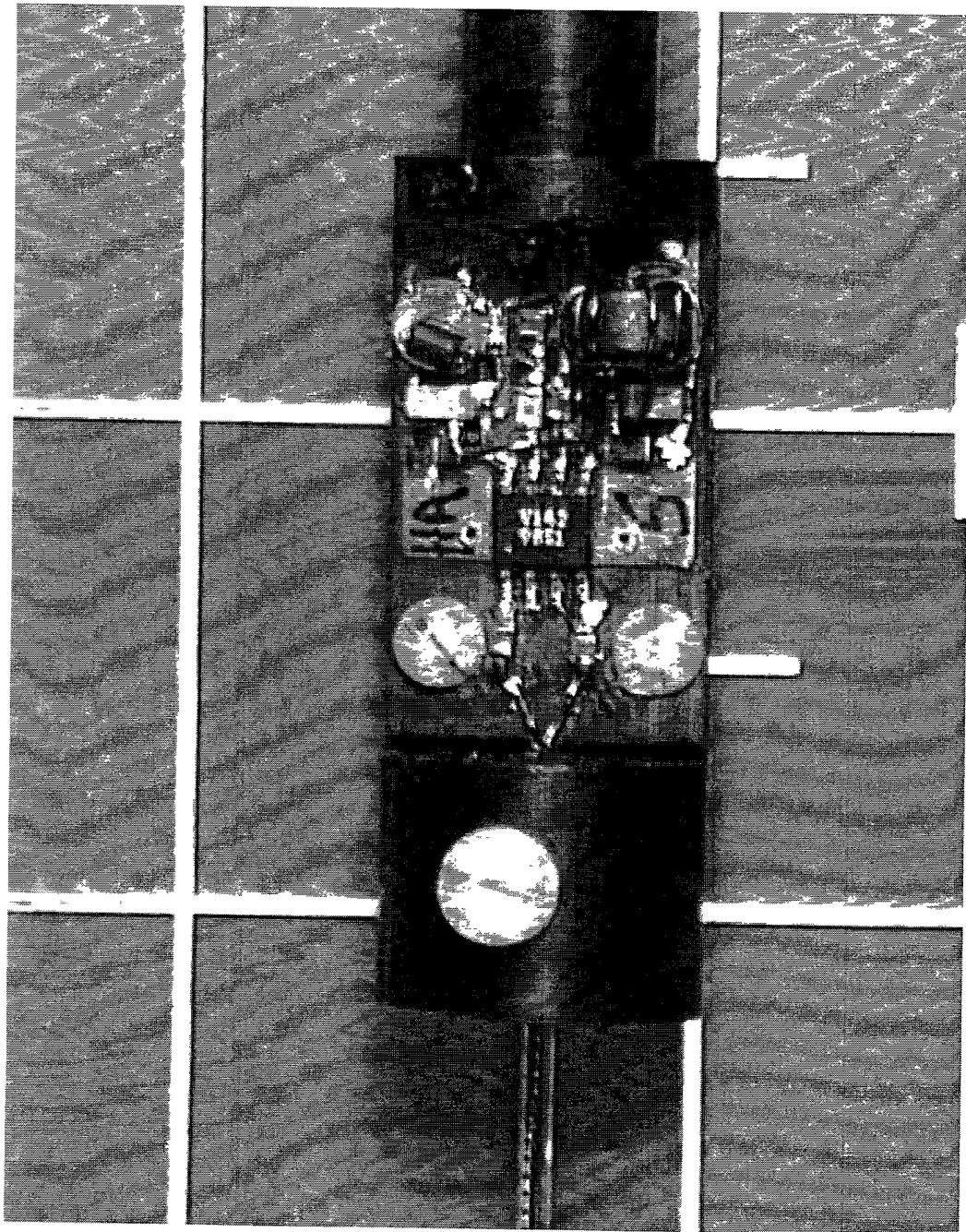


FIG. 27



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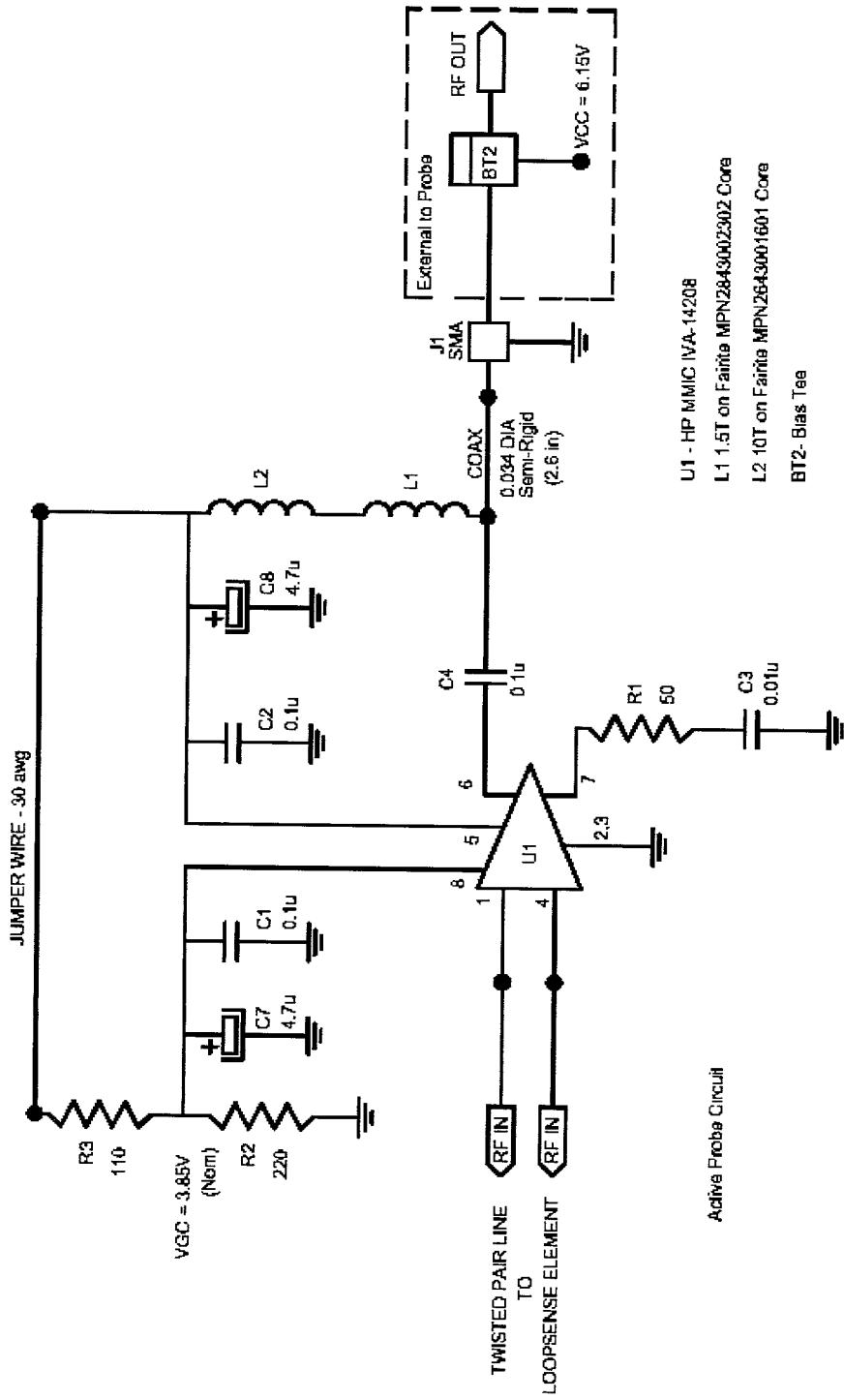


FIG. 28

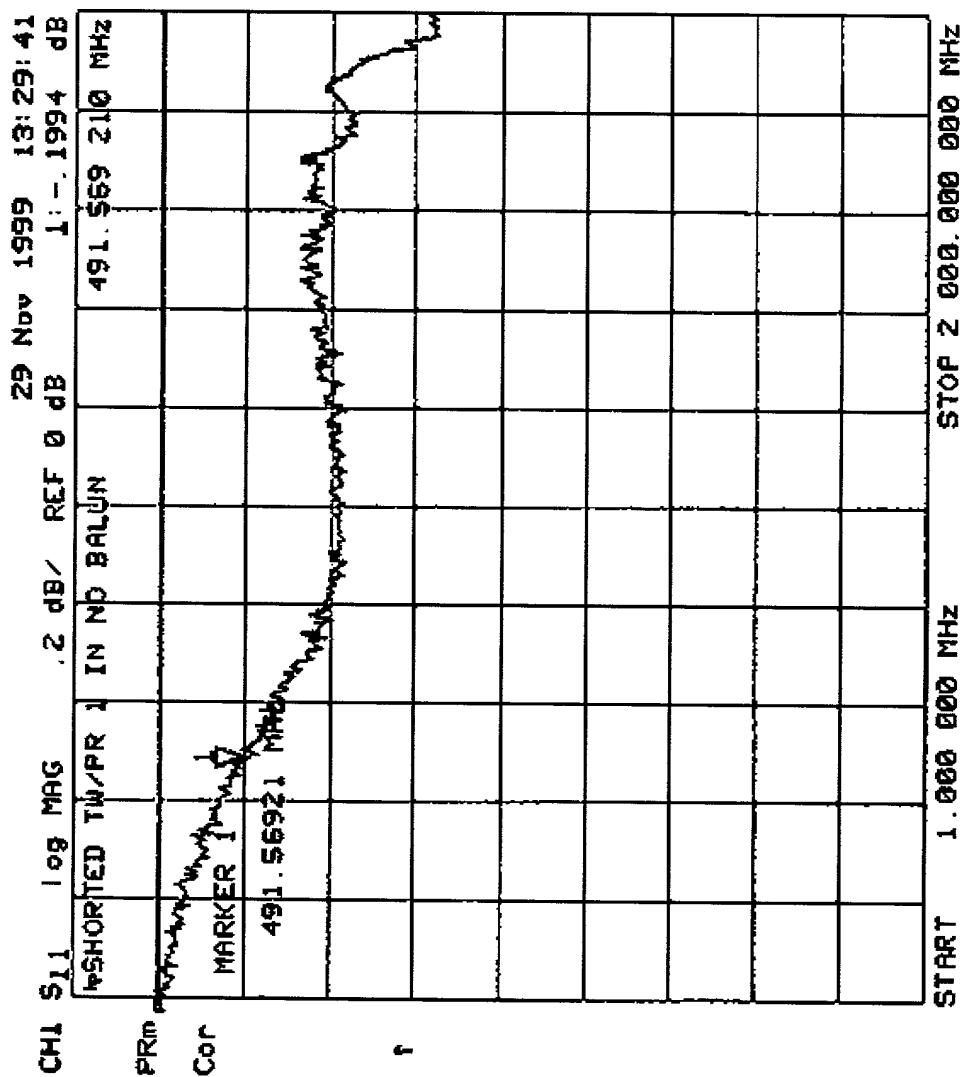


FIG. 29

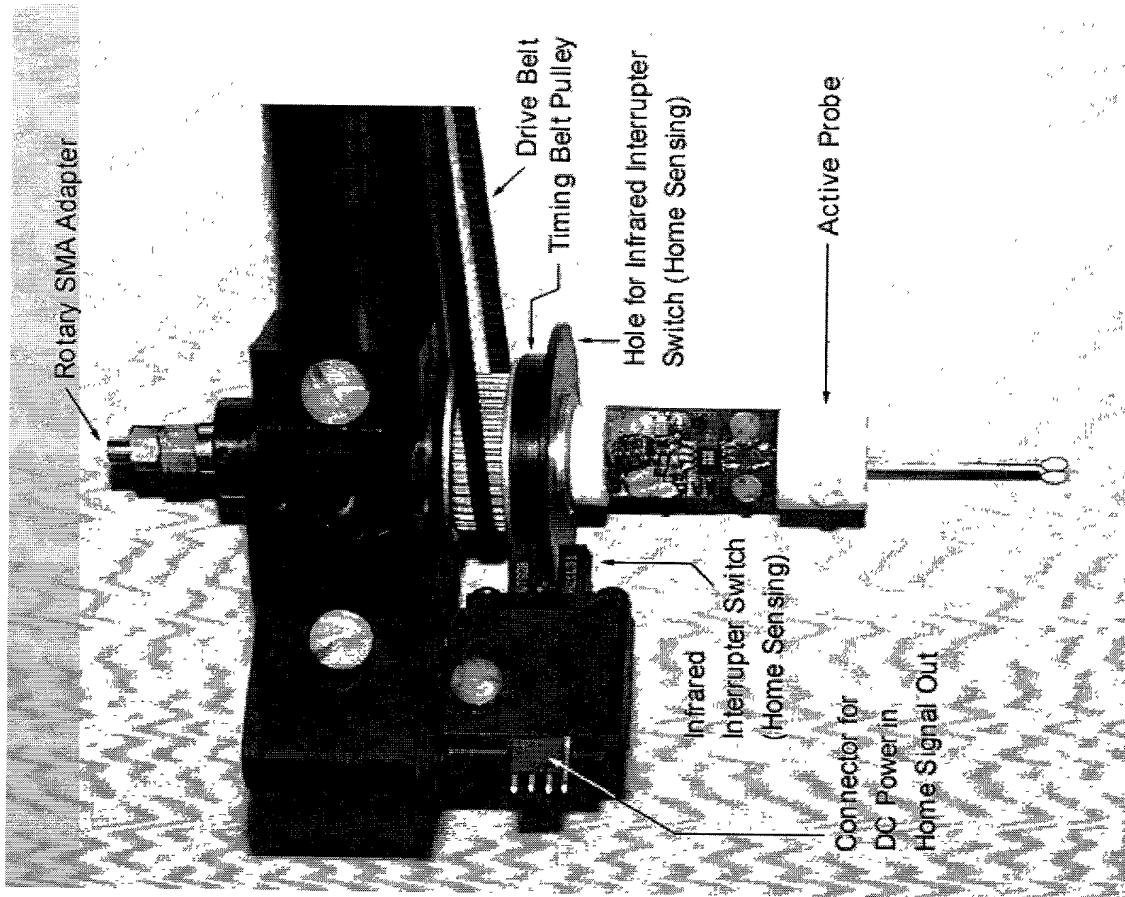


FIG. 30

Figure 31 shows the connector and power connection to the Stepper Motor.

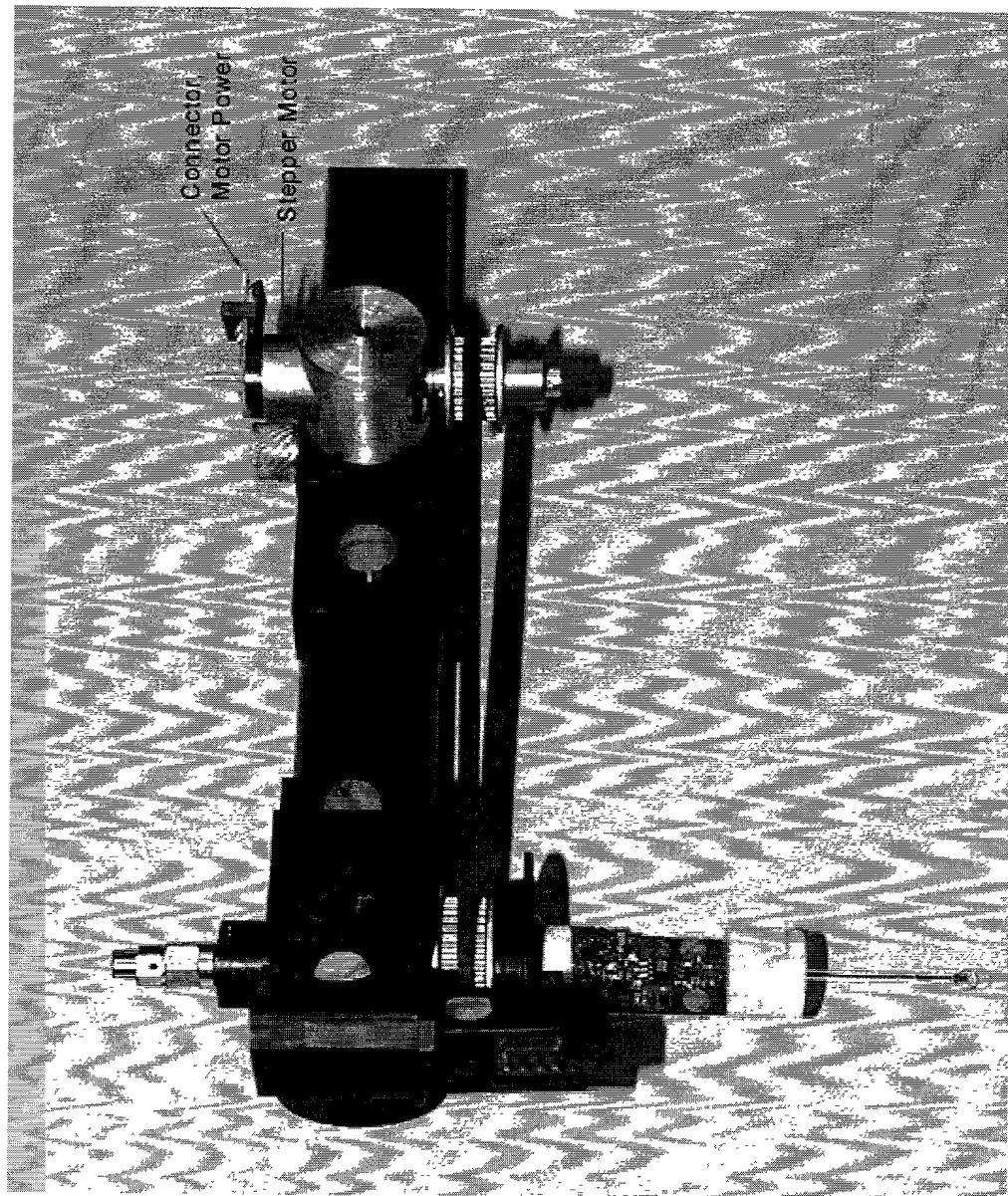


FIG. 31

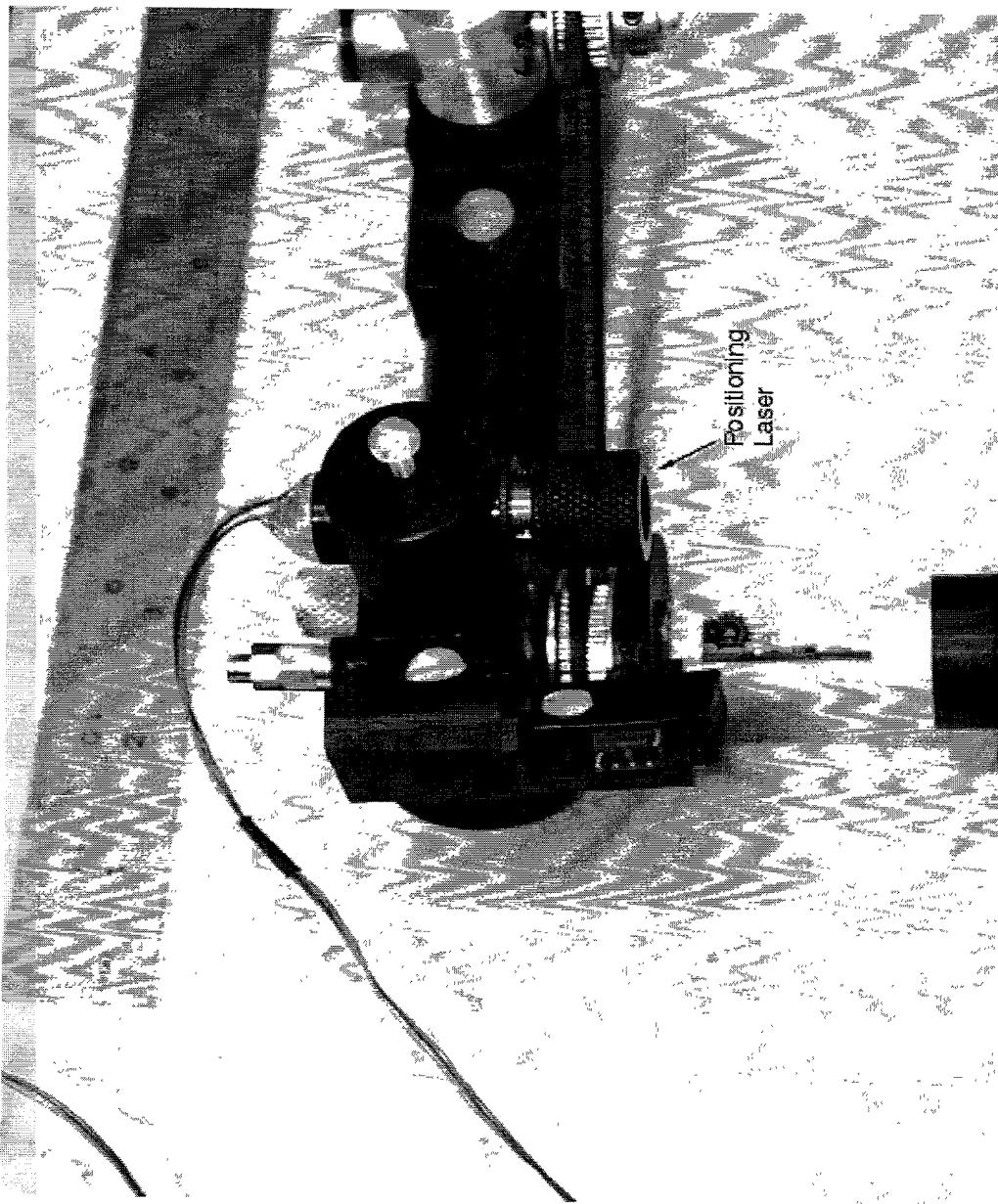


FIG. 32

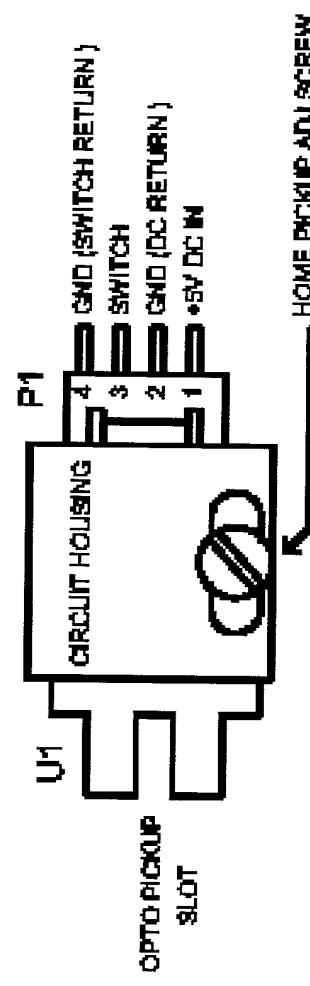
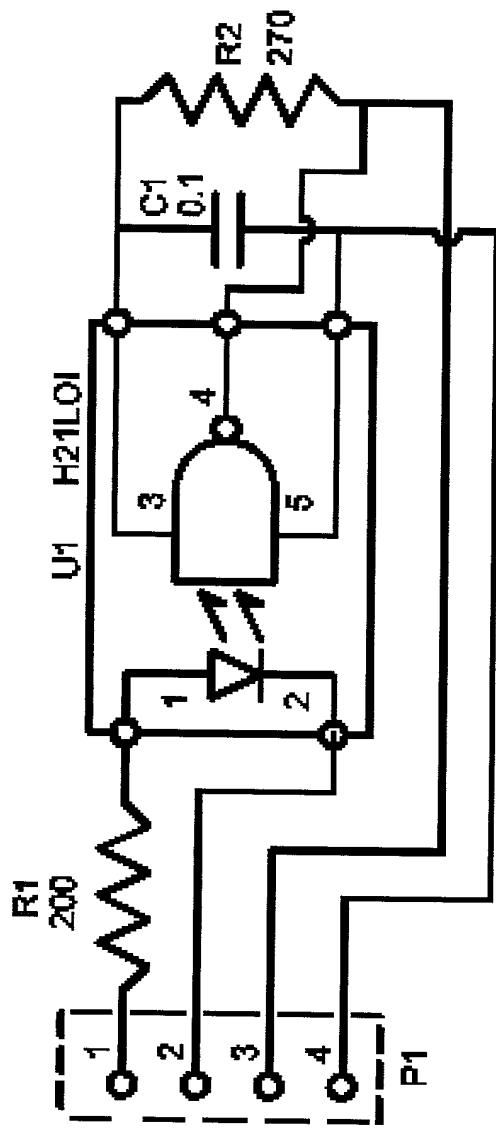


FIG. 33

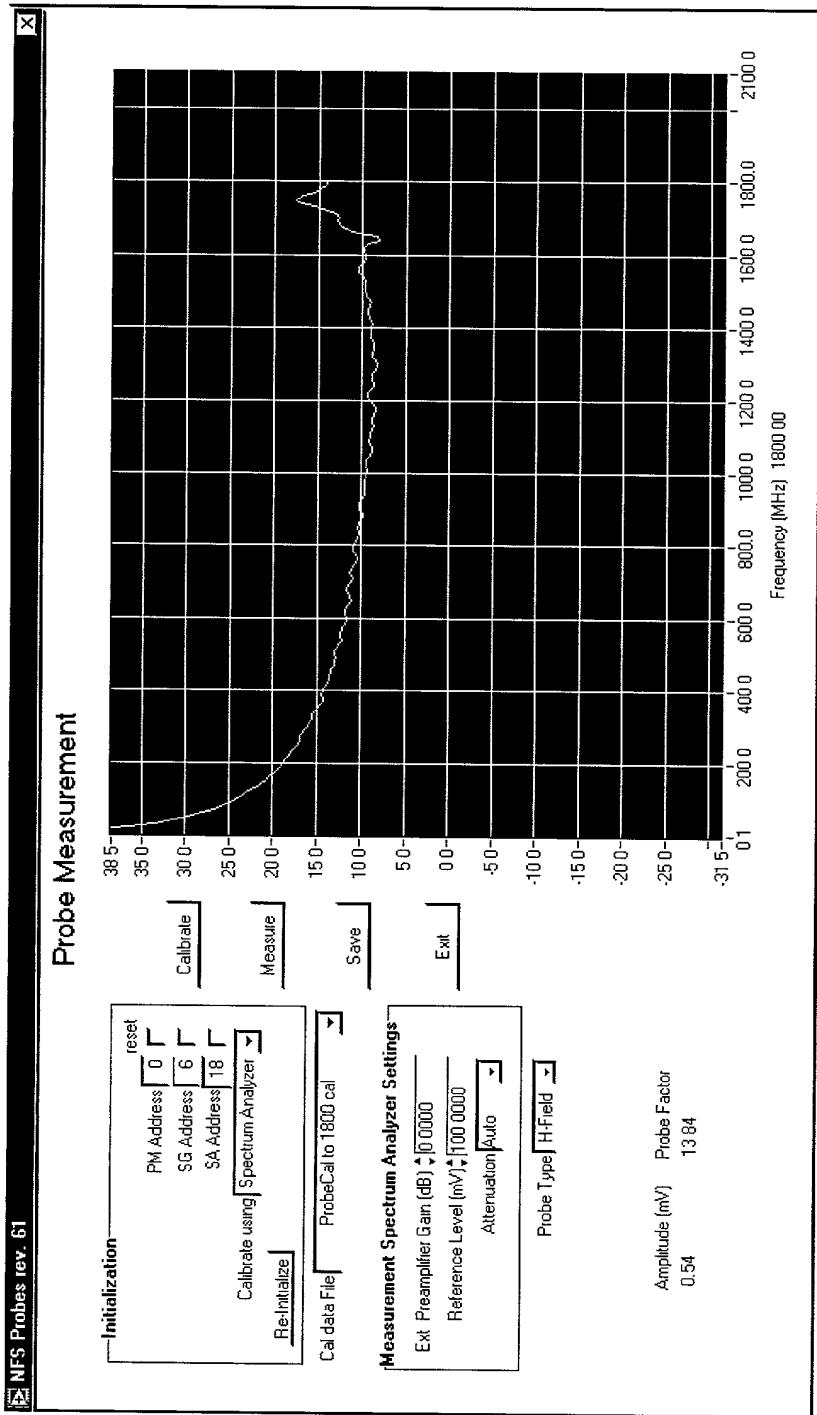
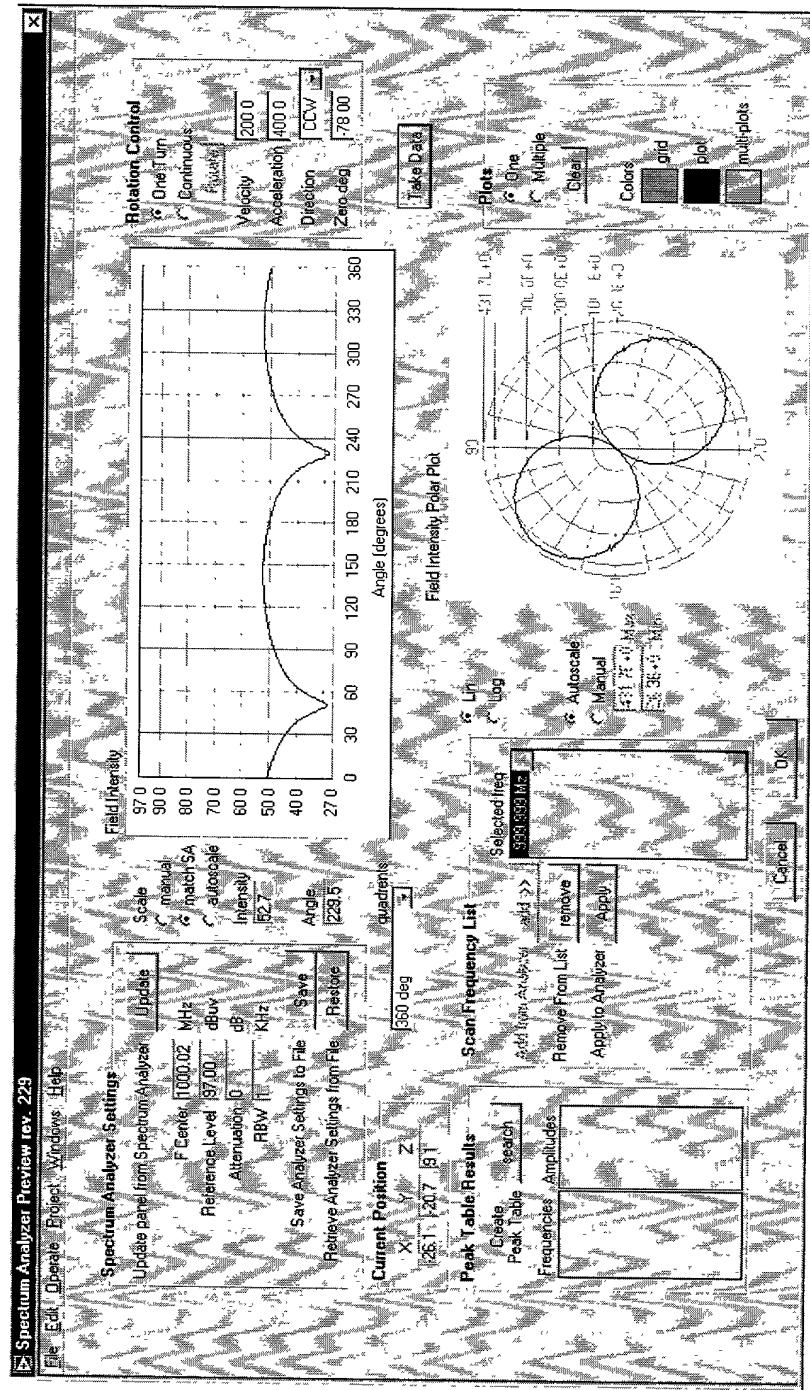


FIG. 34

FIG. 35



Current distribution on a micro stripline.

The Micro Stripline is terminated in 50 ohms      Frequency, 1000 MHz  
Probe Type Magnetic Field      Measurement Increments dx, 1.97 mm, dy, 1.94 mm, dz, 0 mm  
Number of Planes 1, at 14.37 mm above DUT      Magnetic Field Intensity Unit dB uA/m.

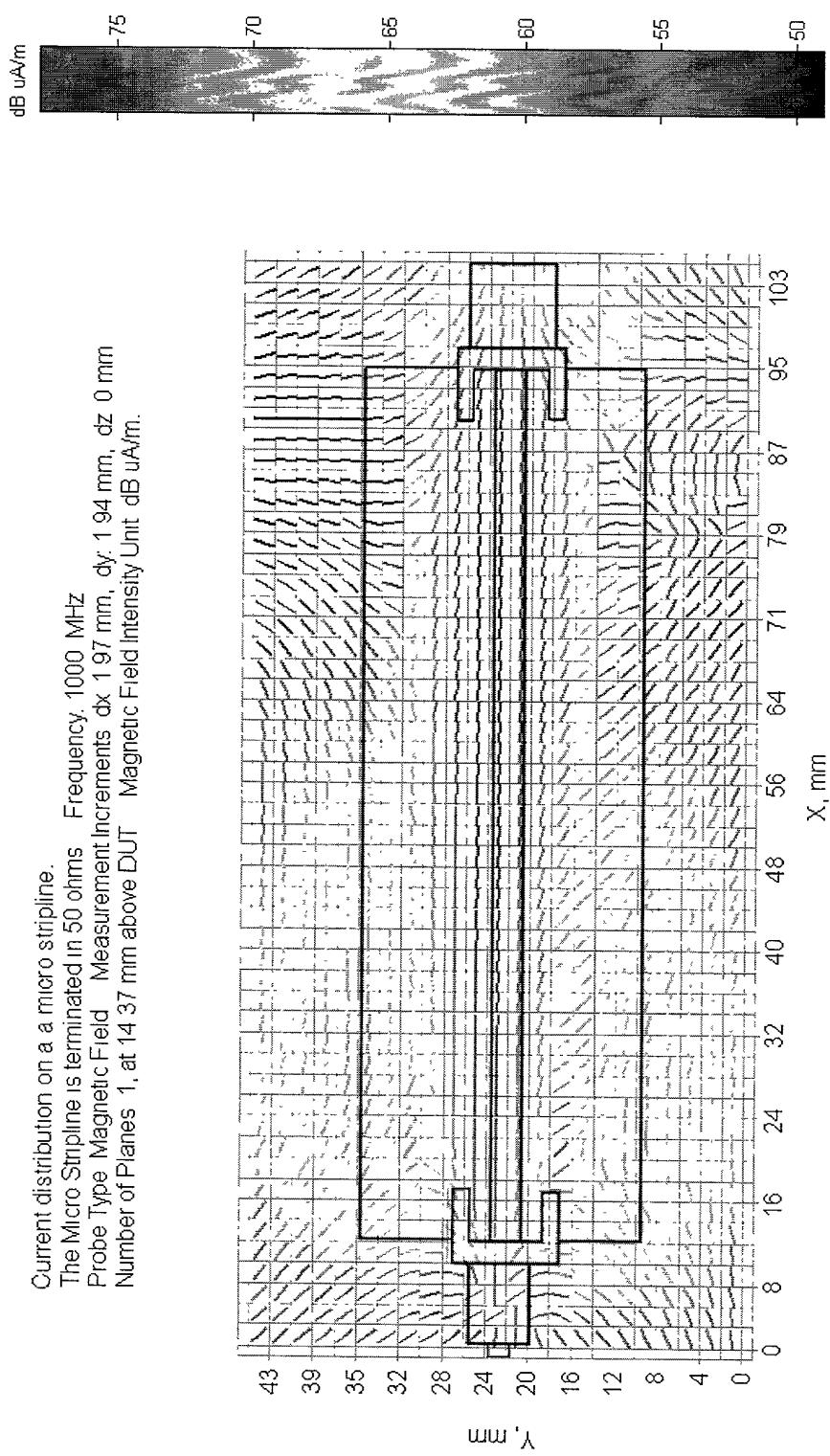


FIG. 36

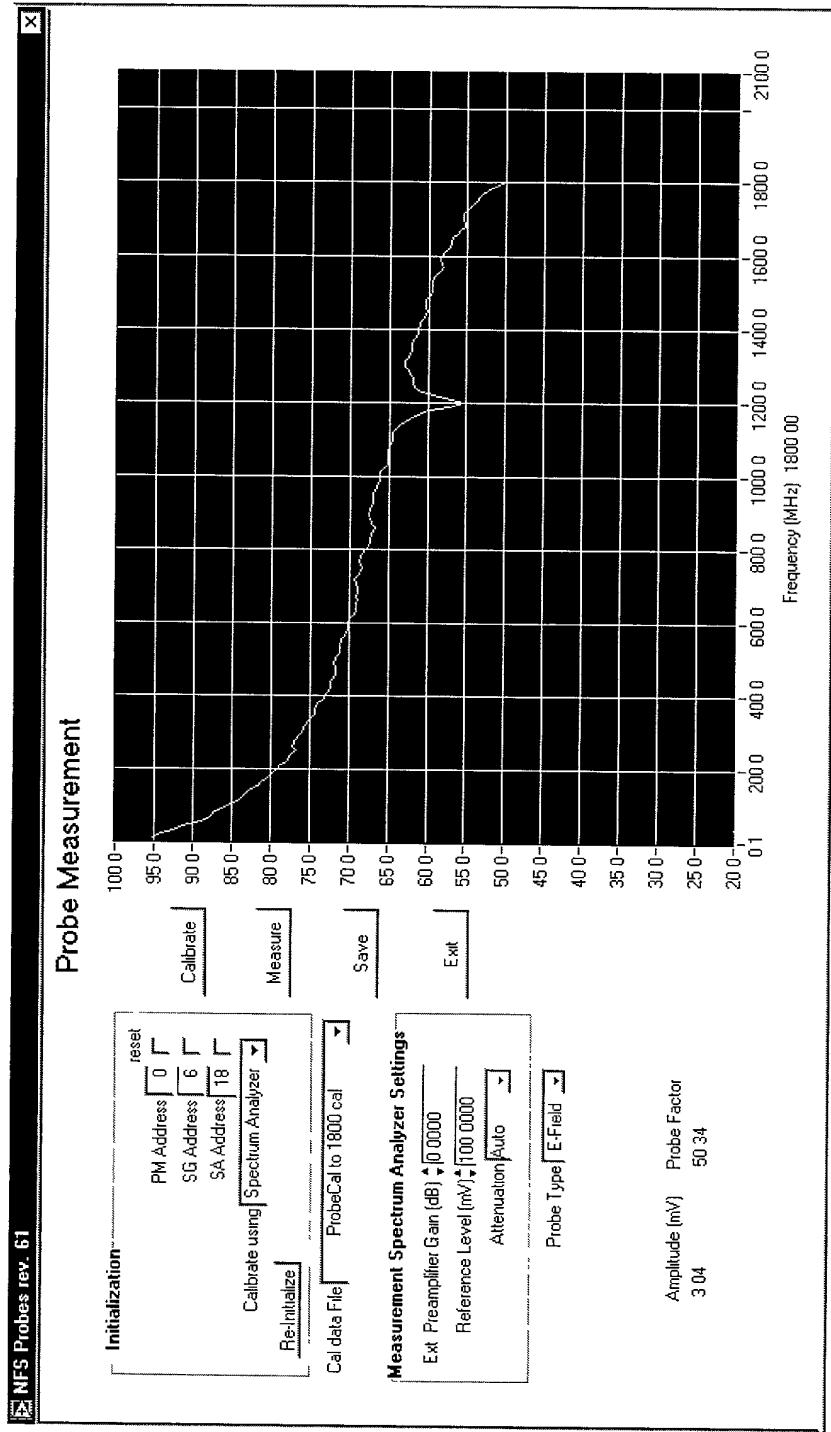
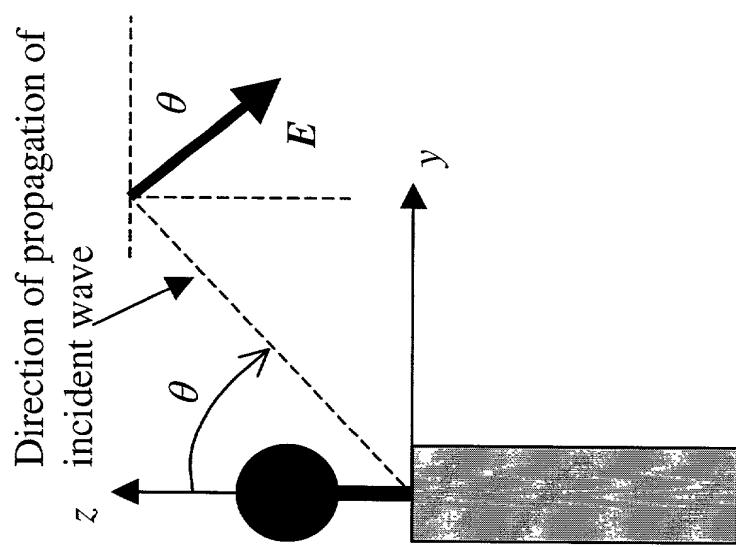


FIG. 37

FIG. 38



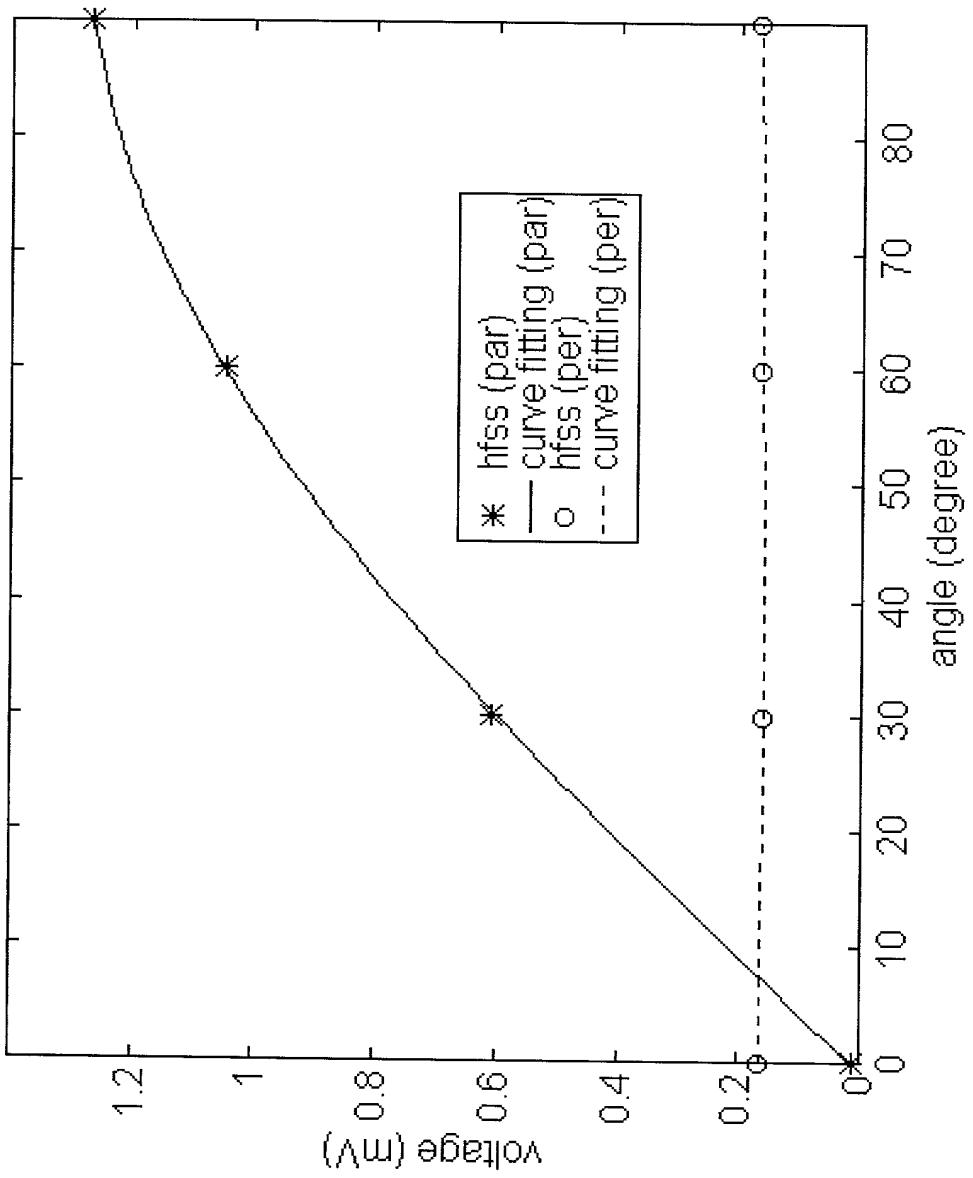


FIG. 39

FIG. 40

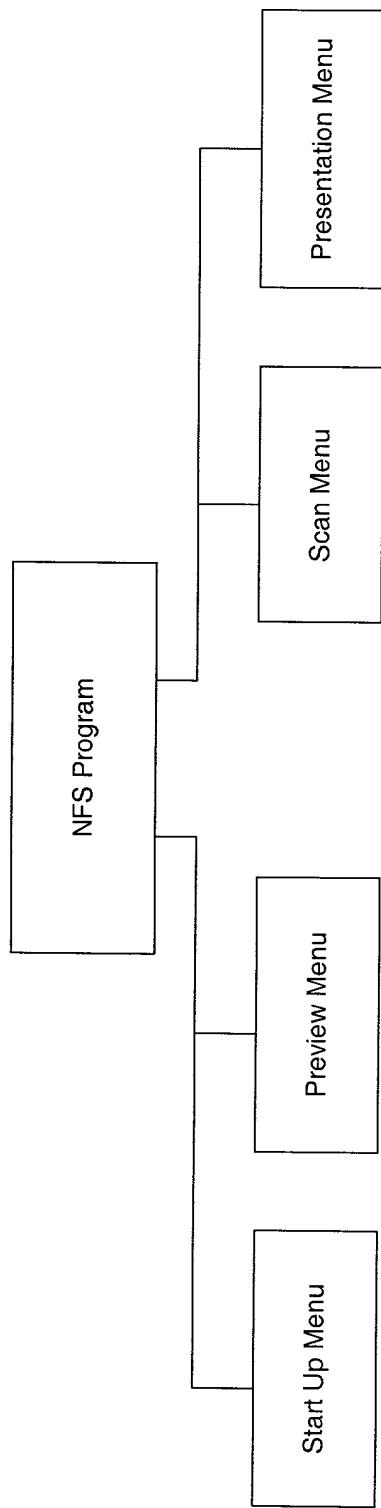
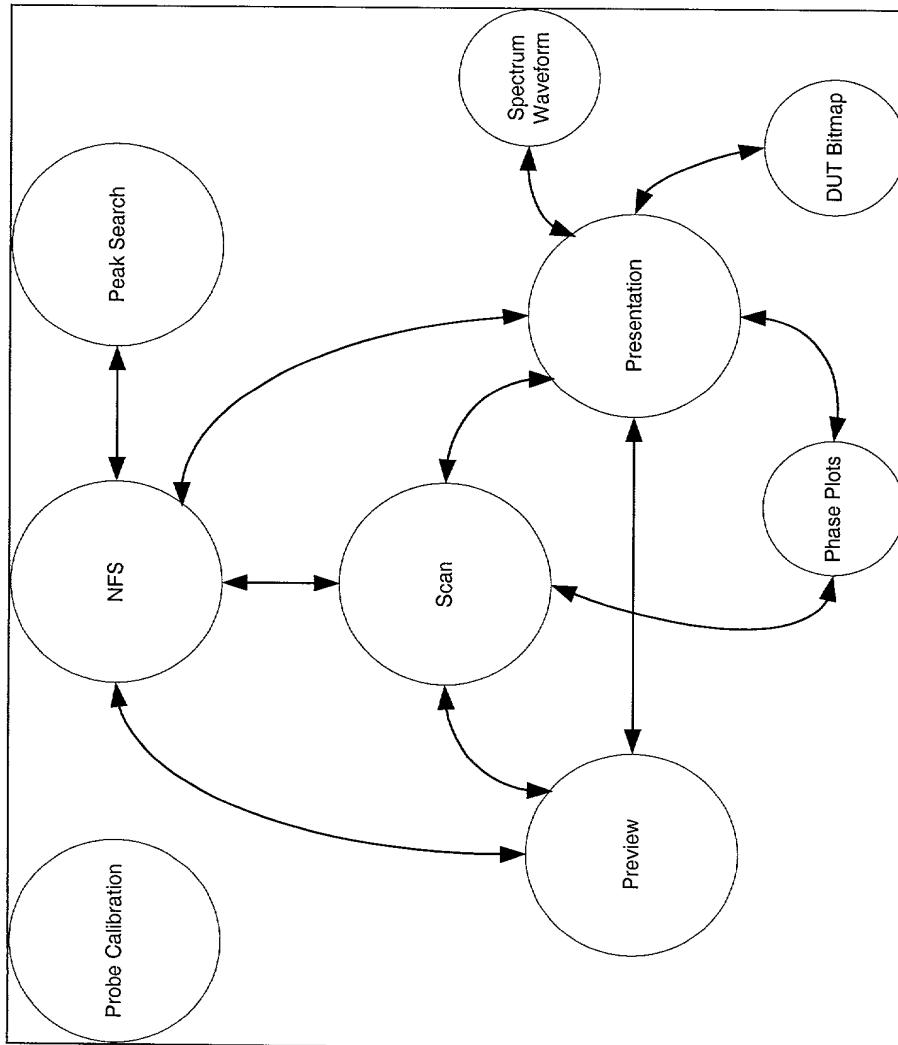


FIG. 41



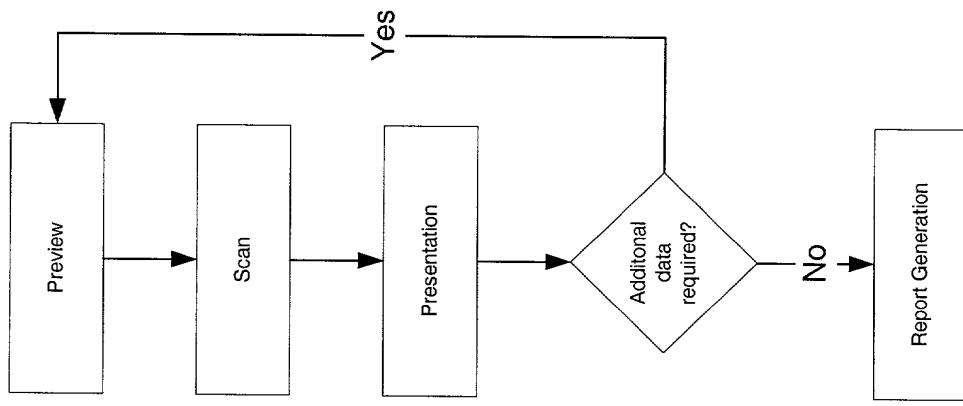


FIG. 42

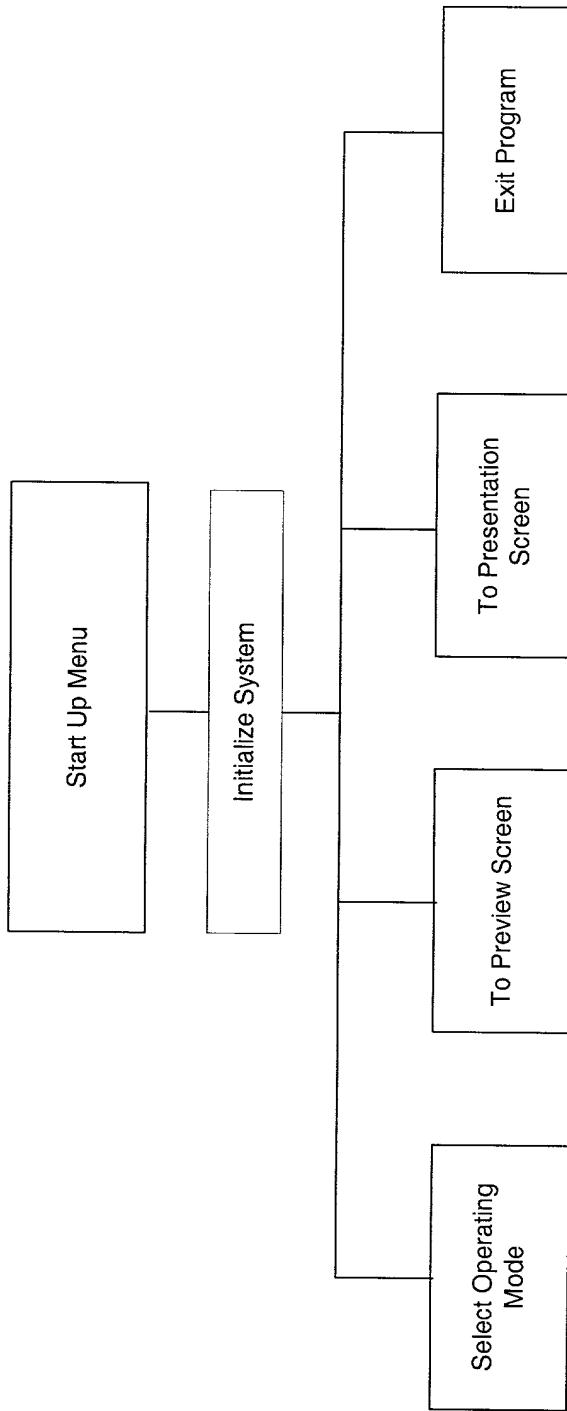


FIG. 43



FIG. 44

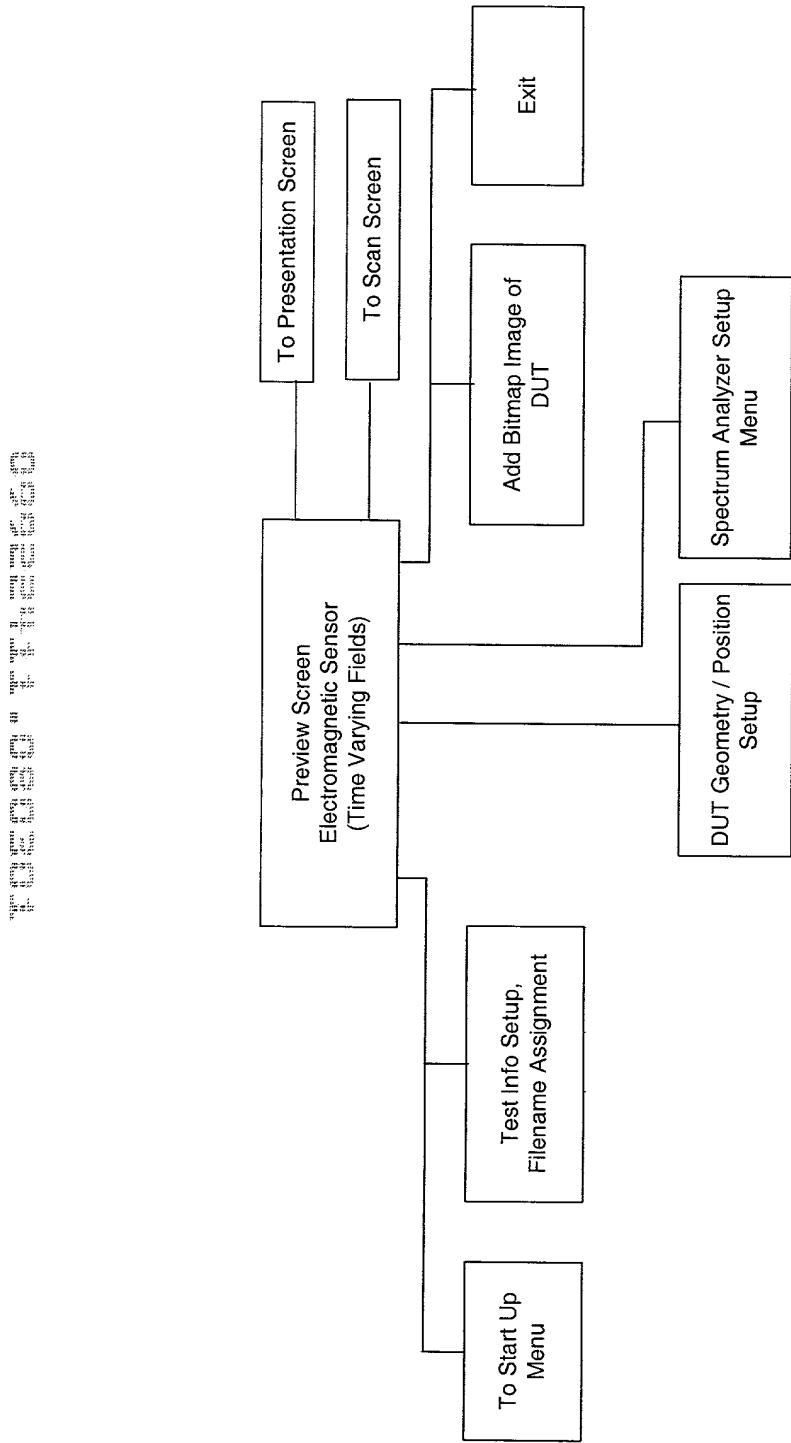


FIG. 45

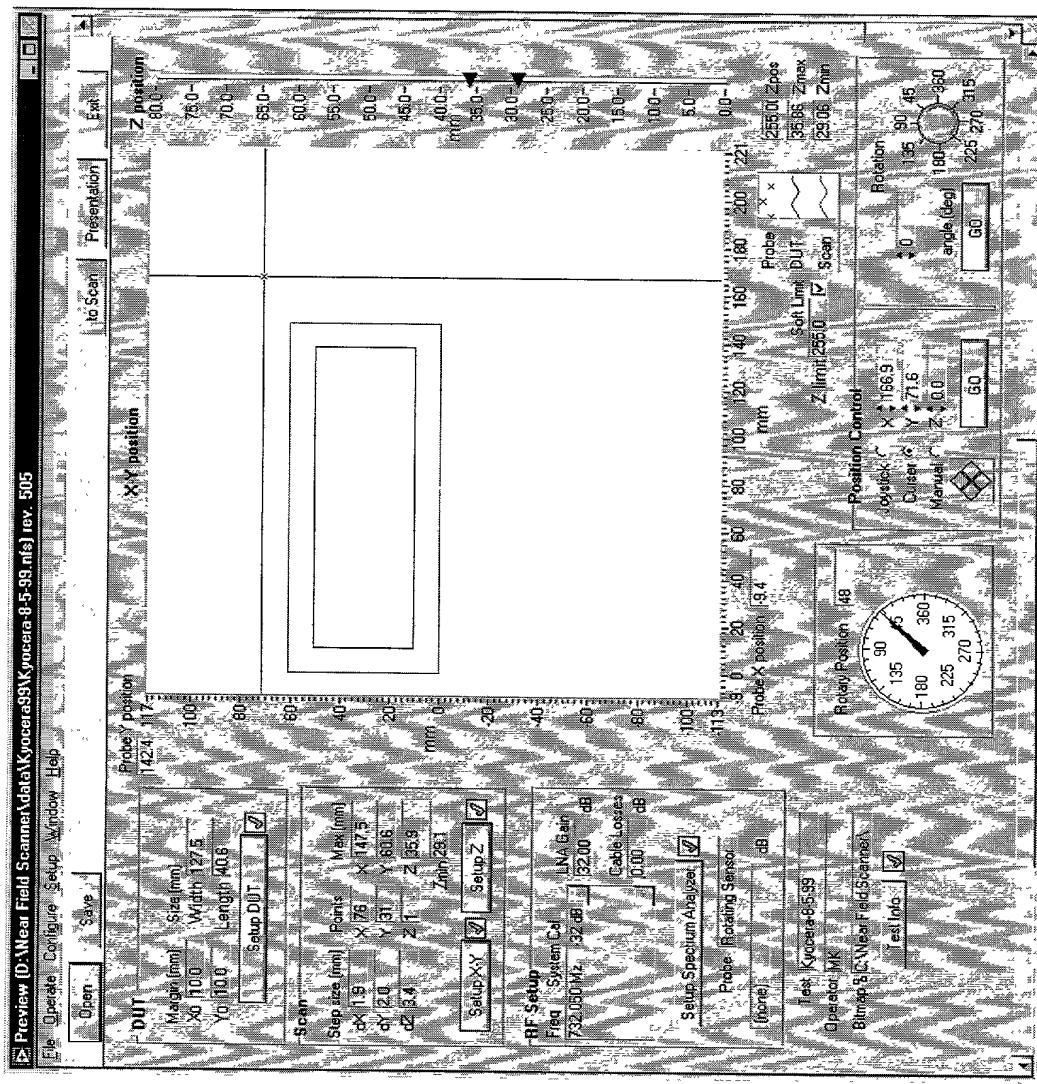


FIG. 46

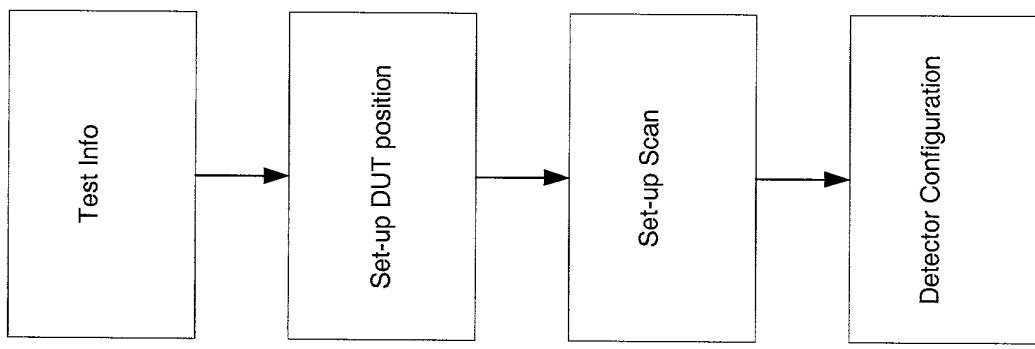


FIG. 47

FIG. 48

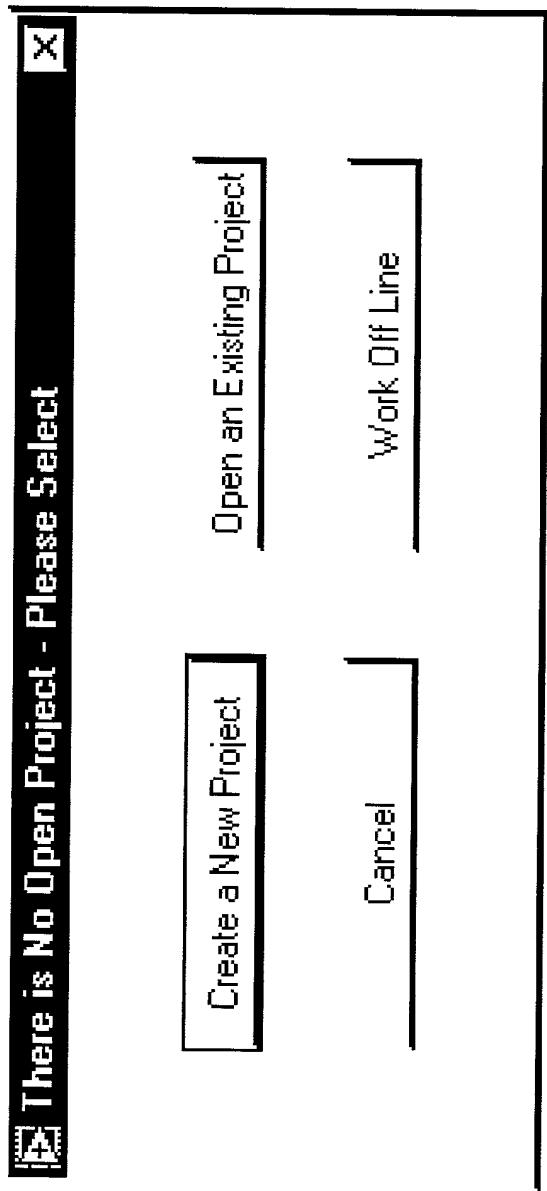


FIG. 49

**Edit Probe Transfer Factor rev. 15**

Probe Name	Units
Ball-2	dB uV/m

Probe correction equation

$$CF = 101.334846 - (0.19858186 * f) + (0.00048578 * f^2) - (5.7022E-7) * (f^3) + (3.0722E-10) * (f^4)$$

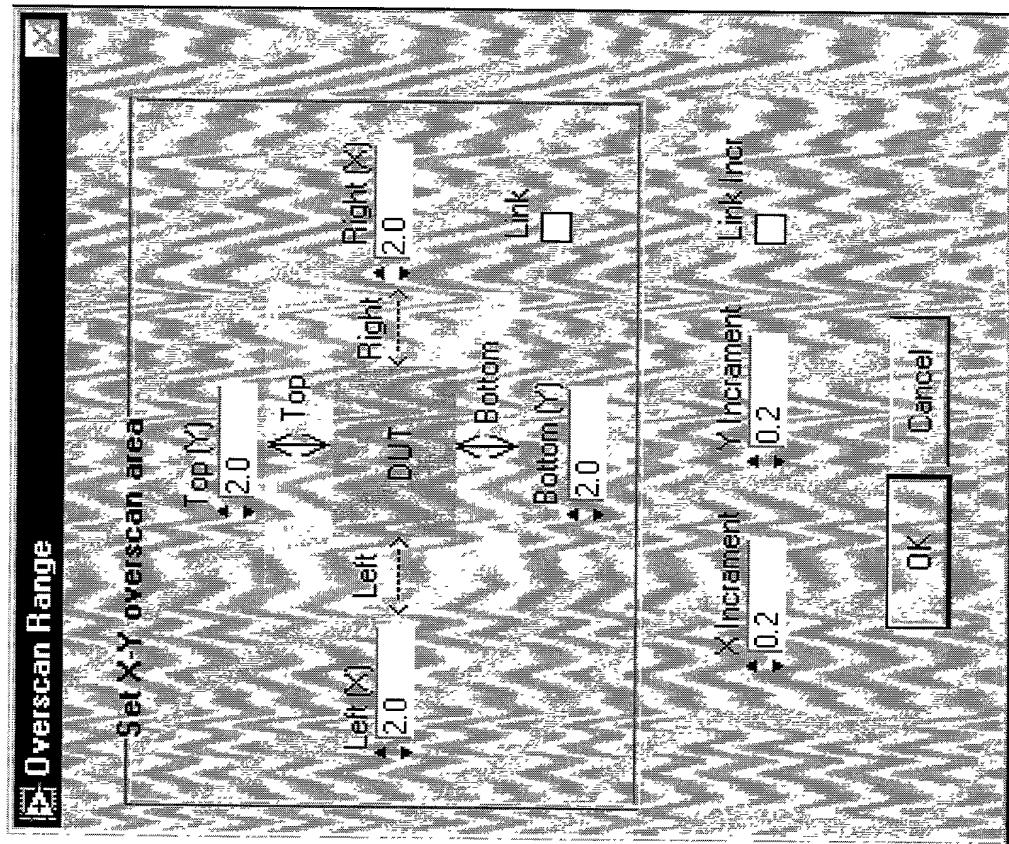


FIG. 50

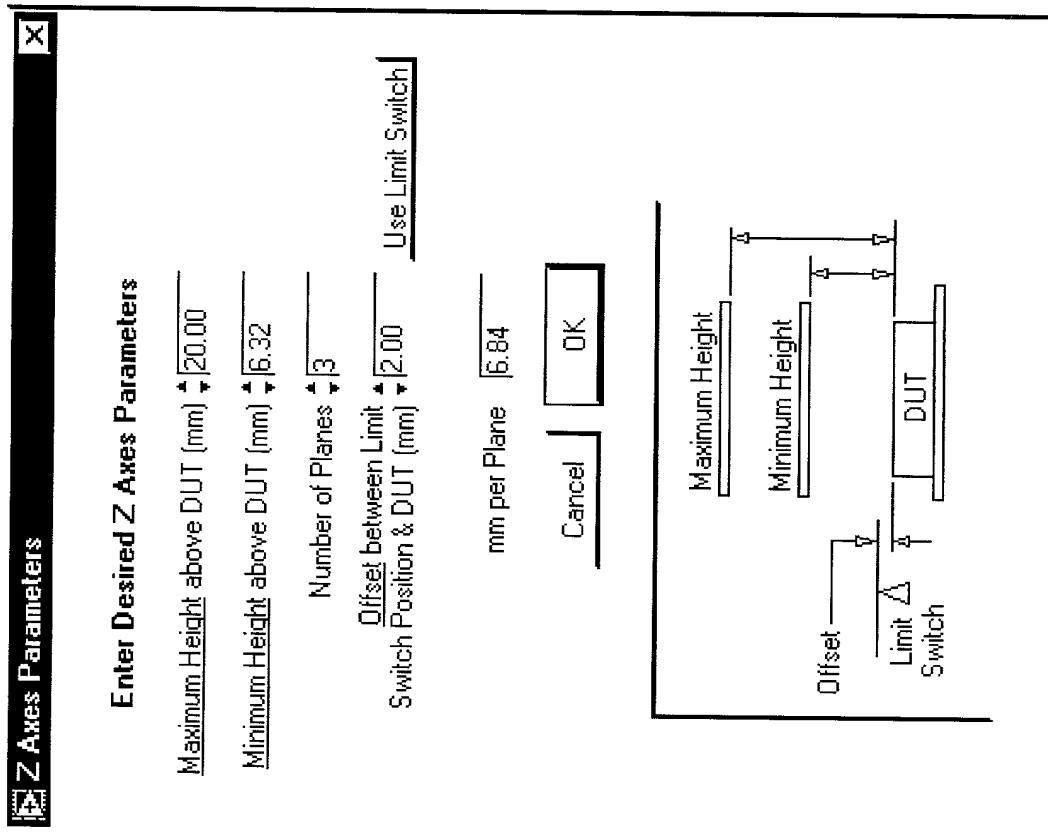


FIG. 51

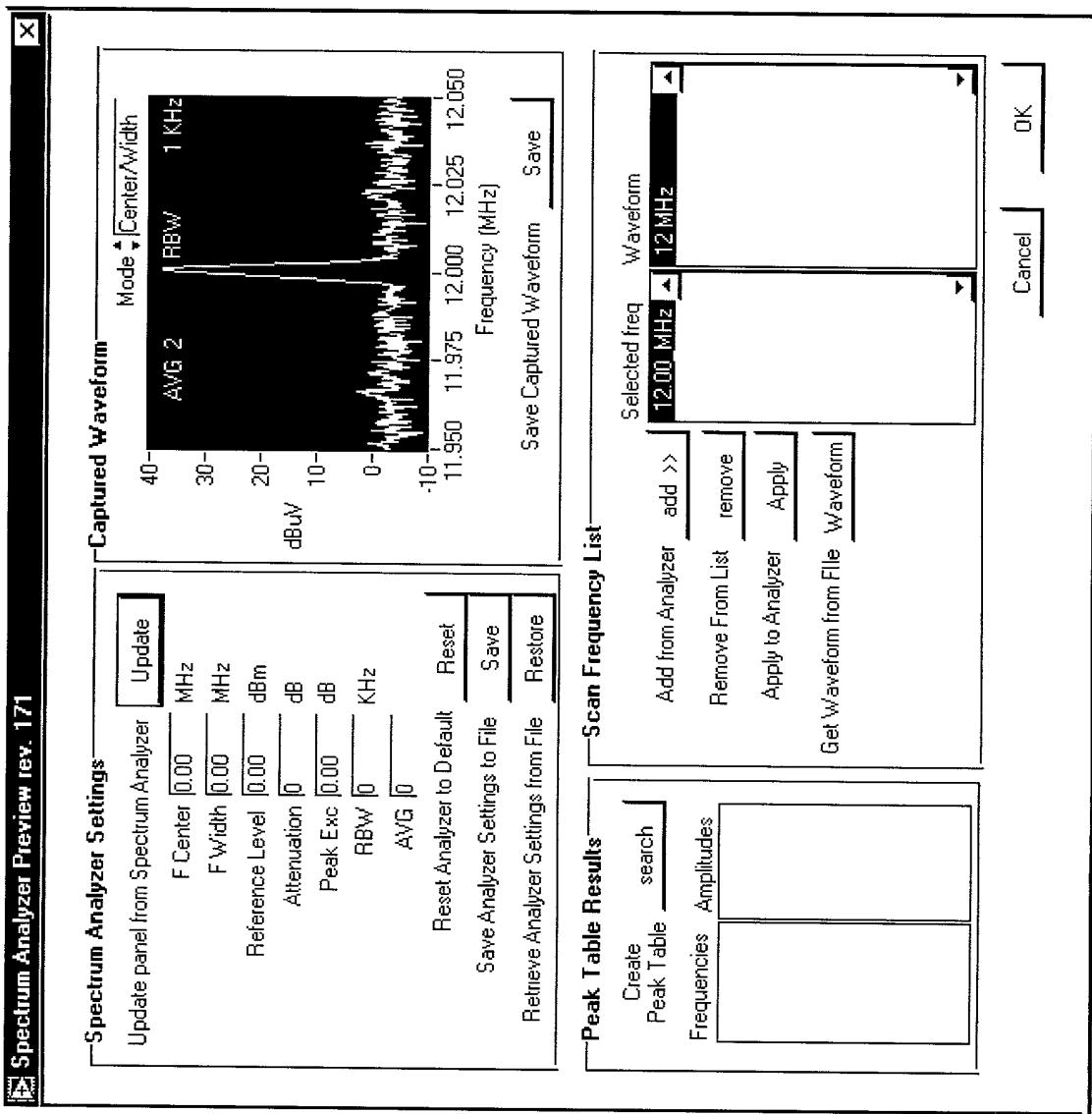
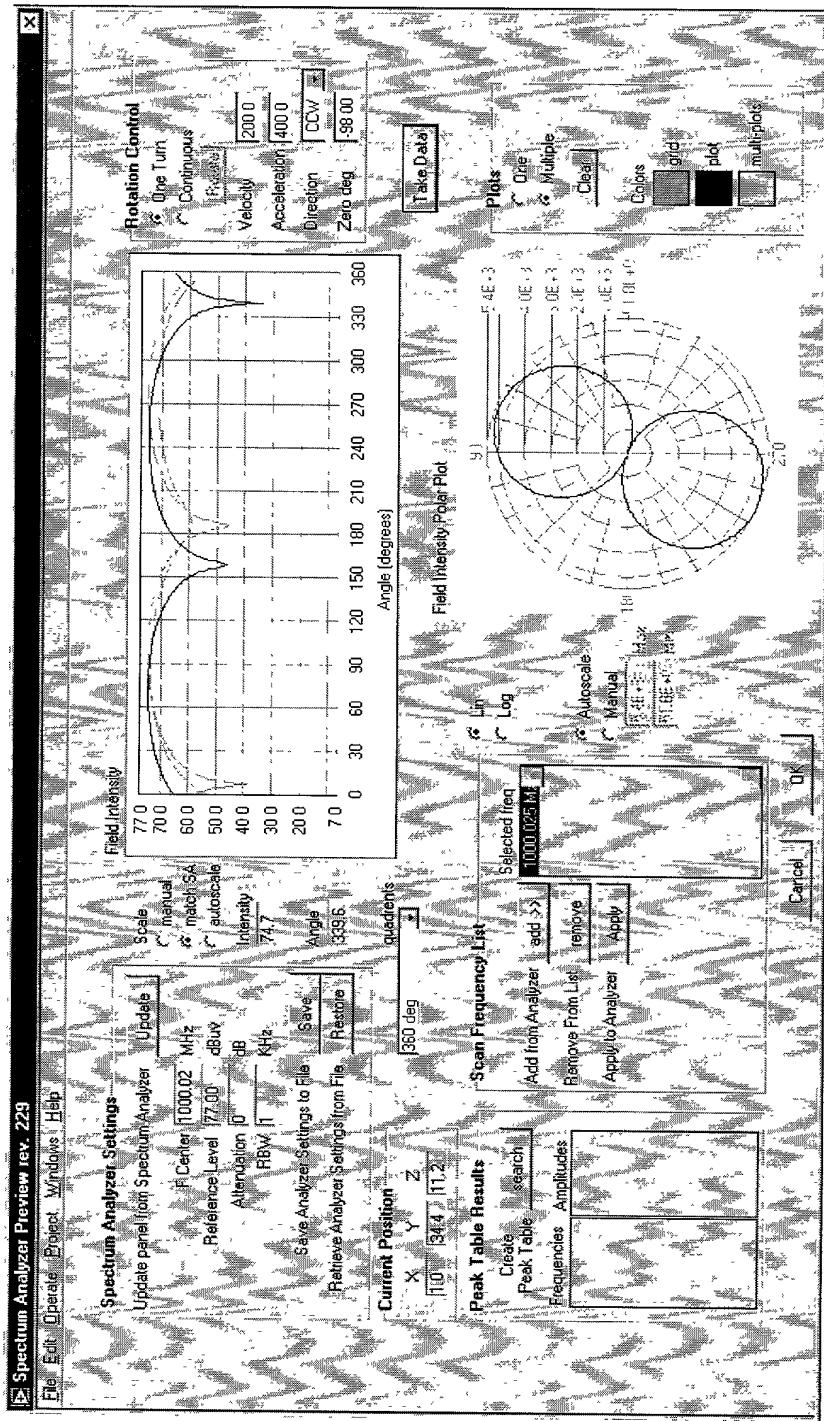


FIG. 52

FIG. 53



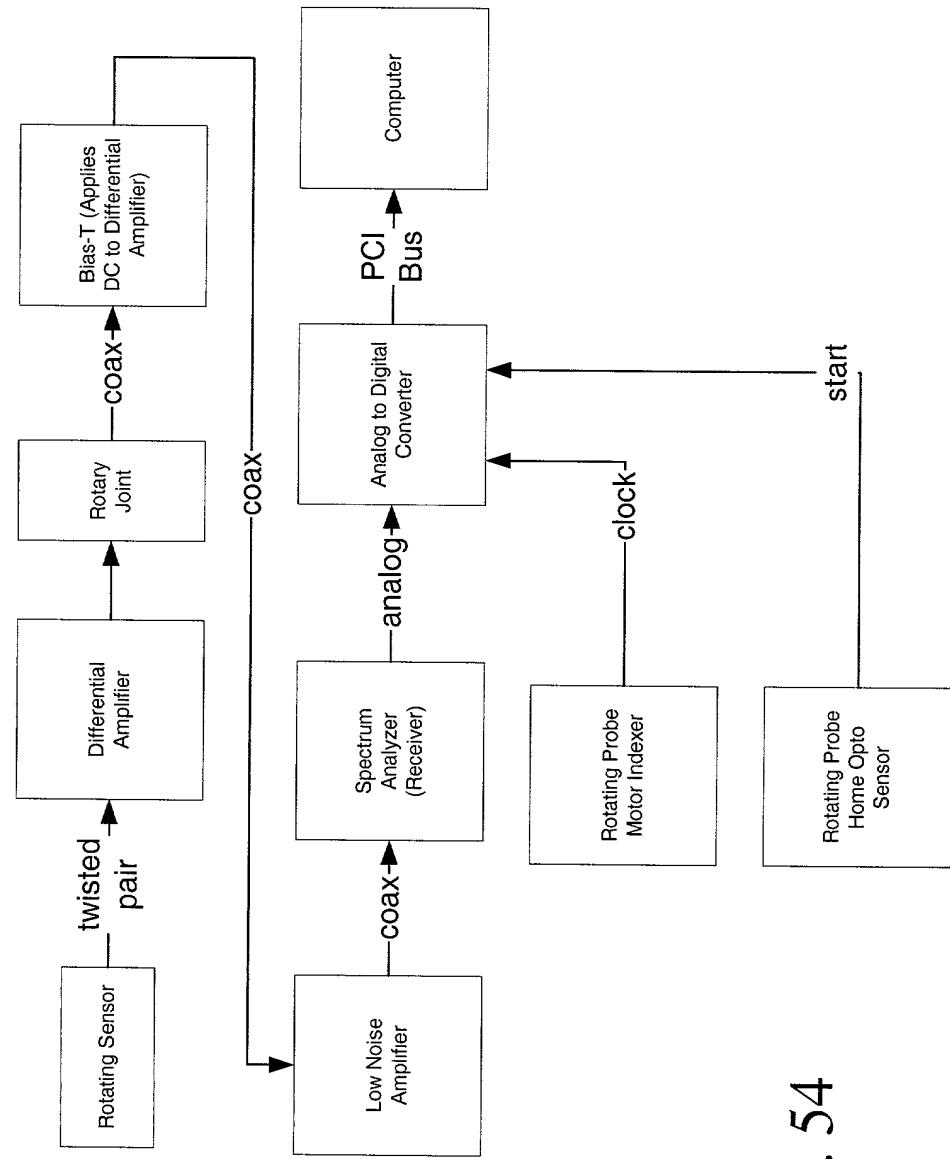


FIG. 54

FIG. 55

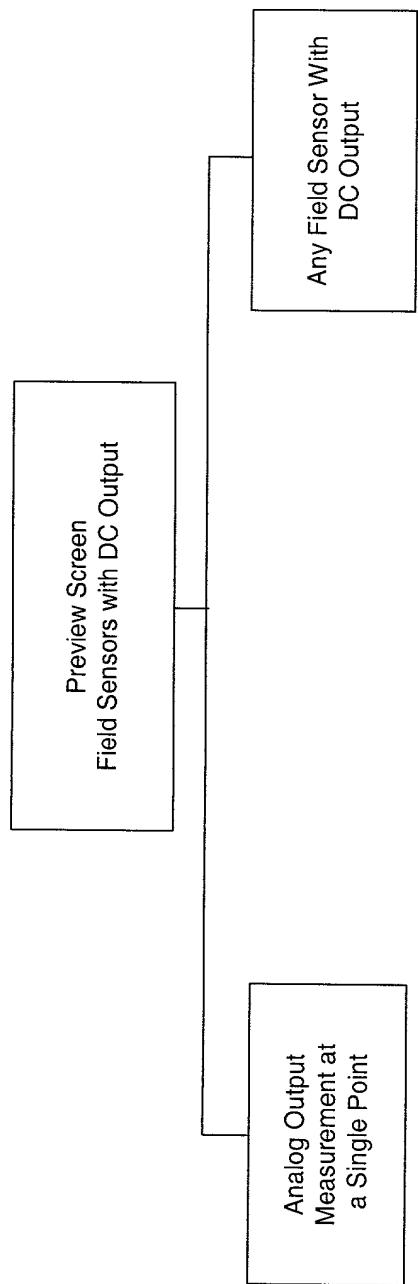
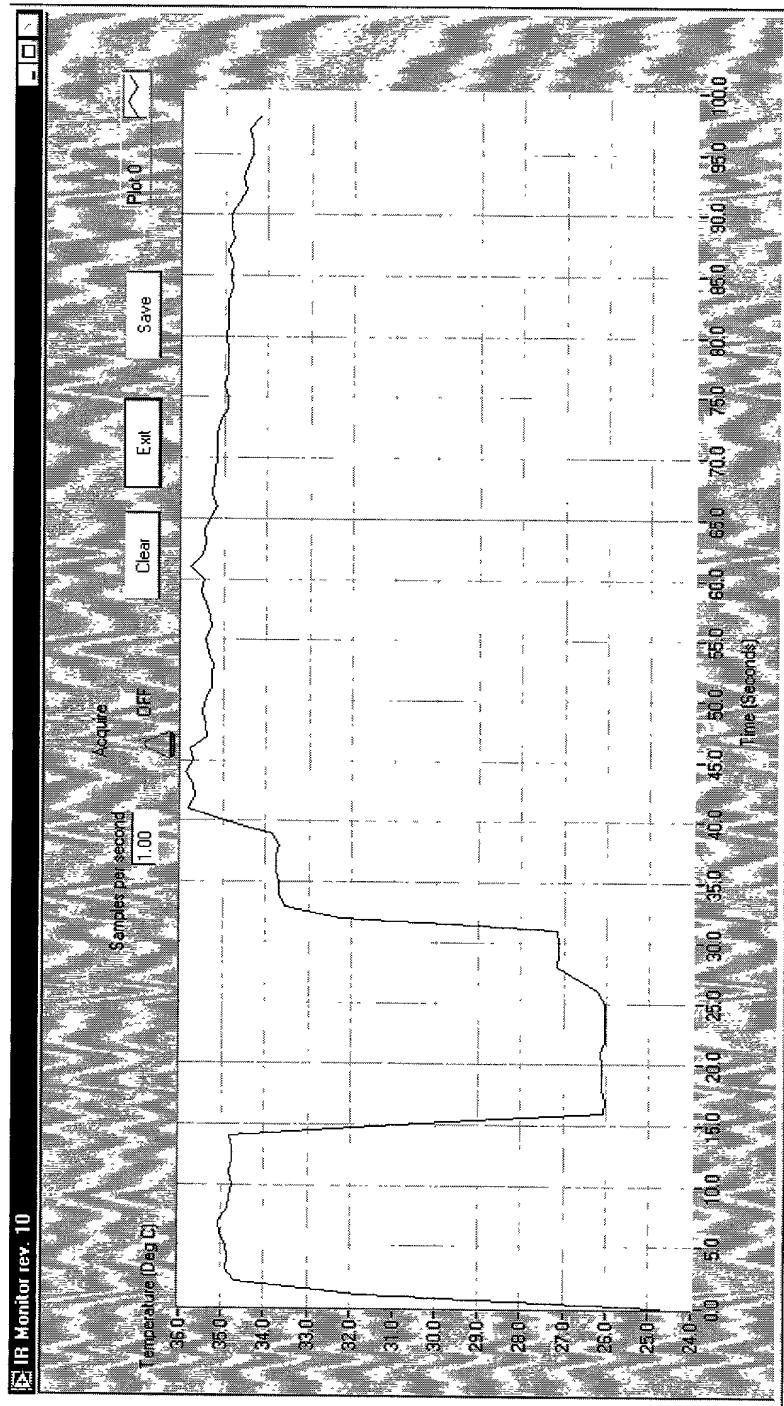


FIG. 56



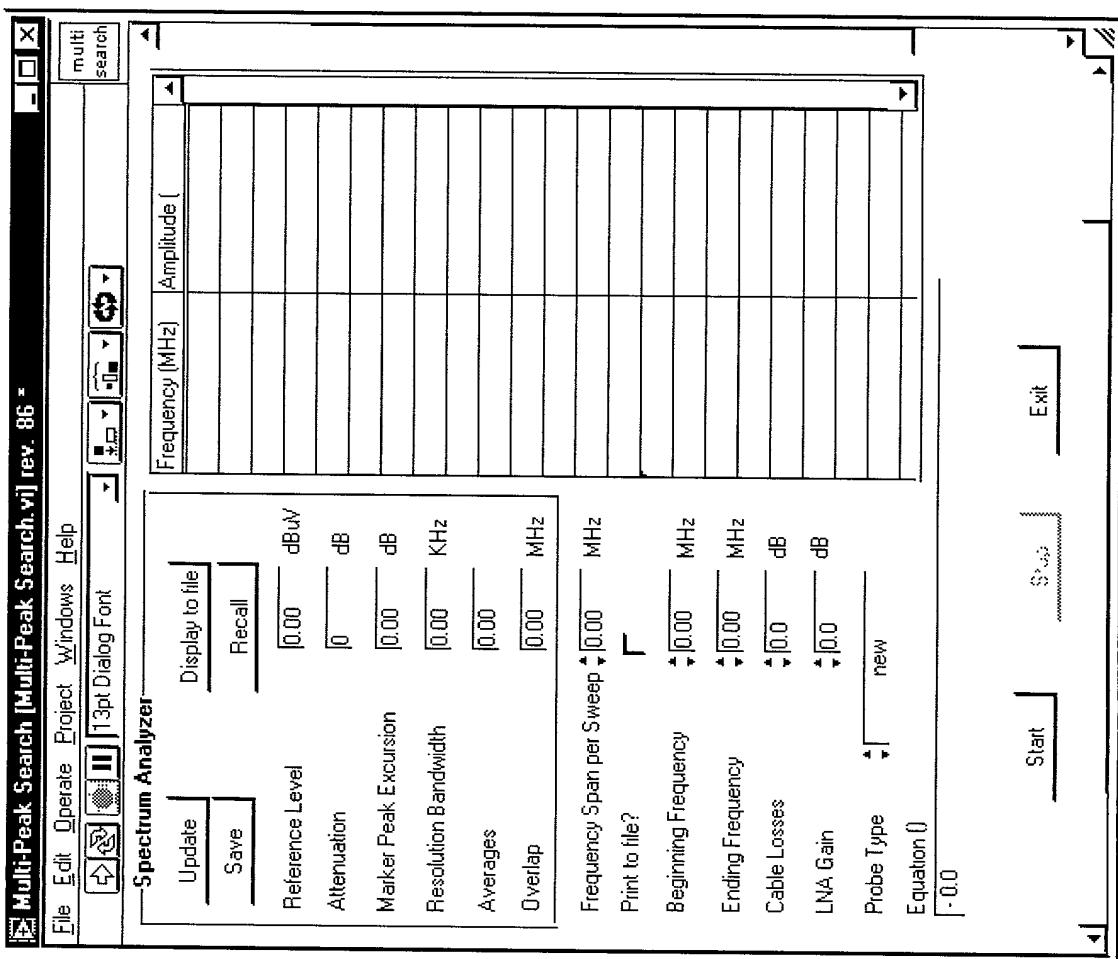


FIG. 57

Scan Screen RF Fixed Sensor\*

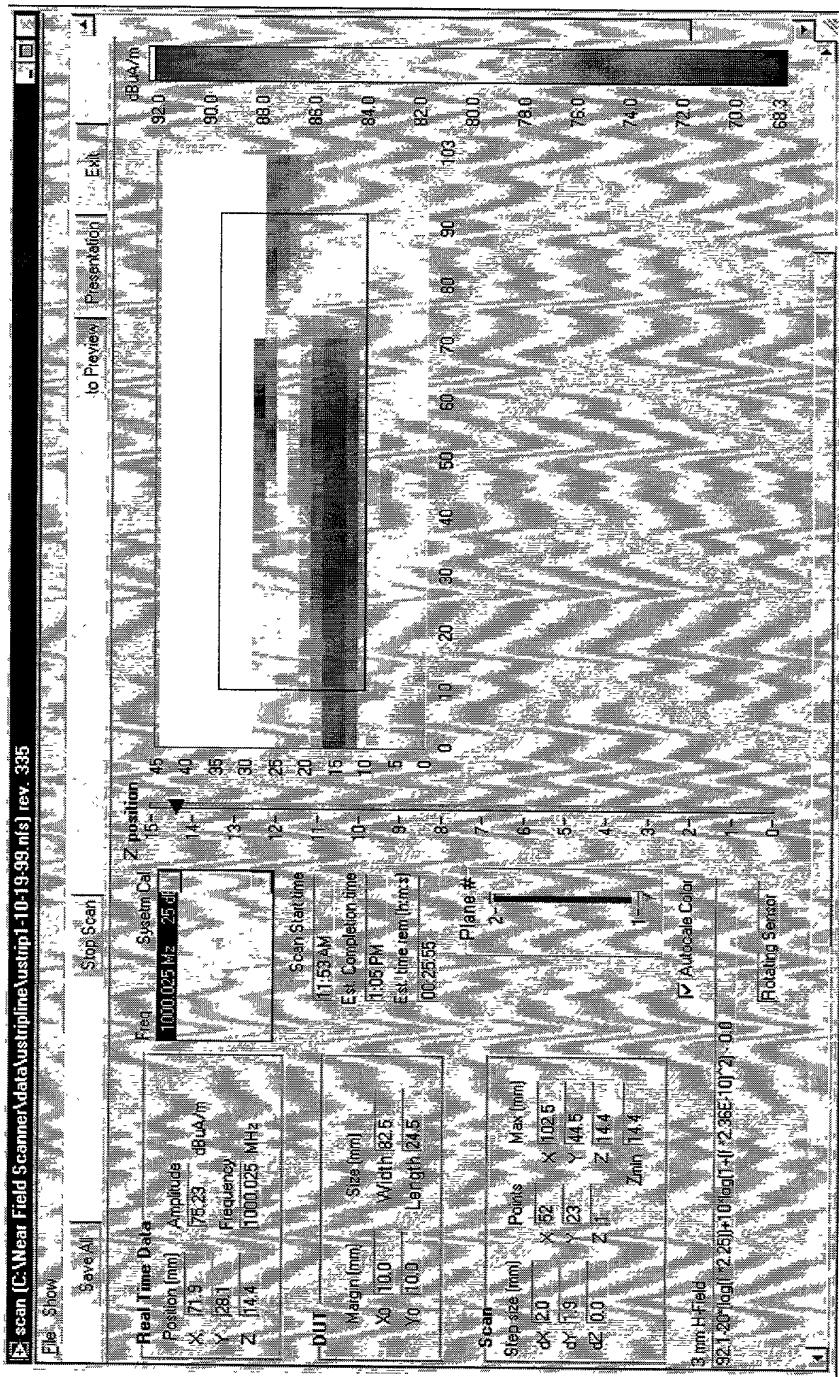
Save Data

Readouts

Monitor Realtime Data as  
False Color Image

FIG. 58

FIG. 59



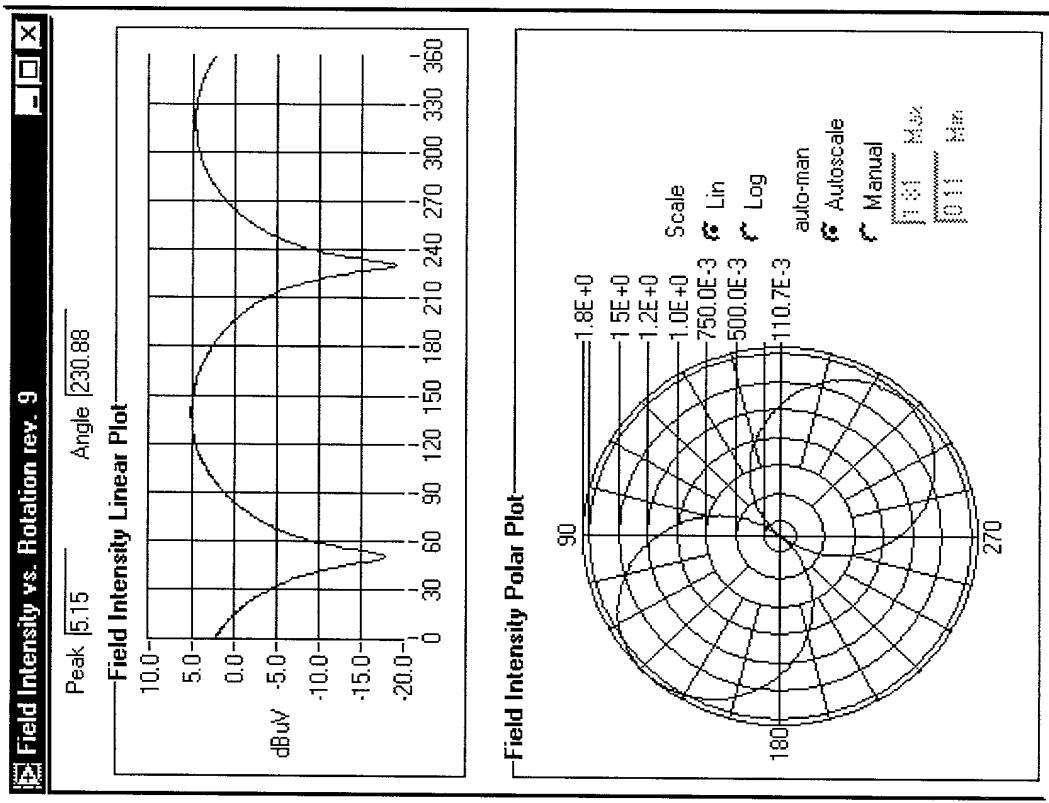


FIG. 60

Scan Screen  
DC Field Sensors

Analog Output at  
a Single Point

Save Data

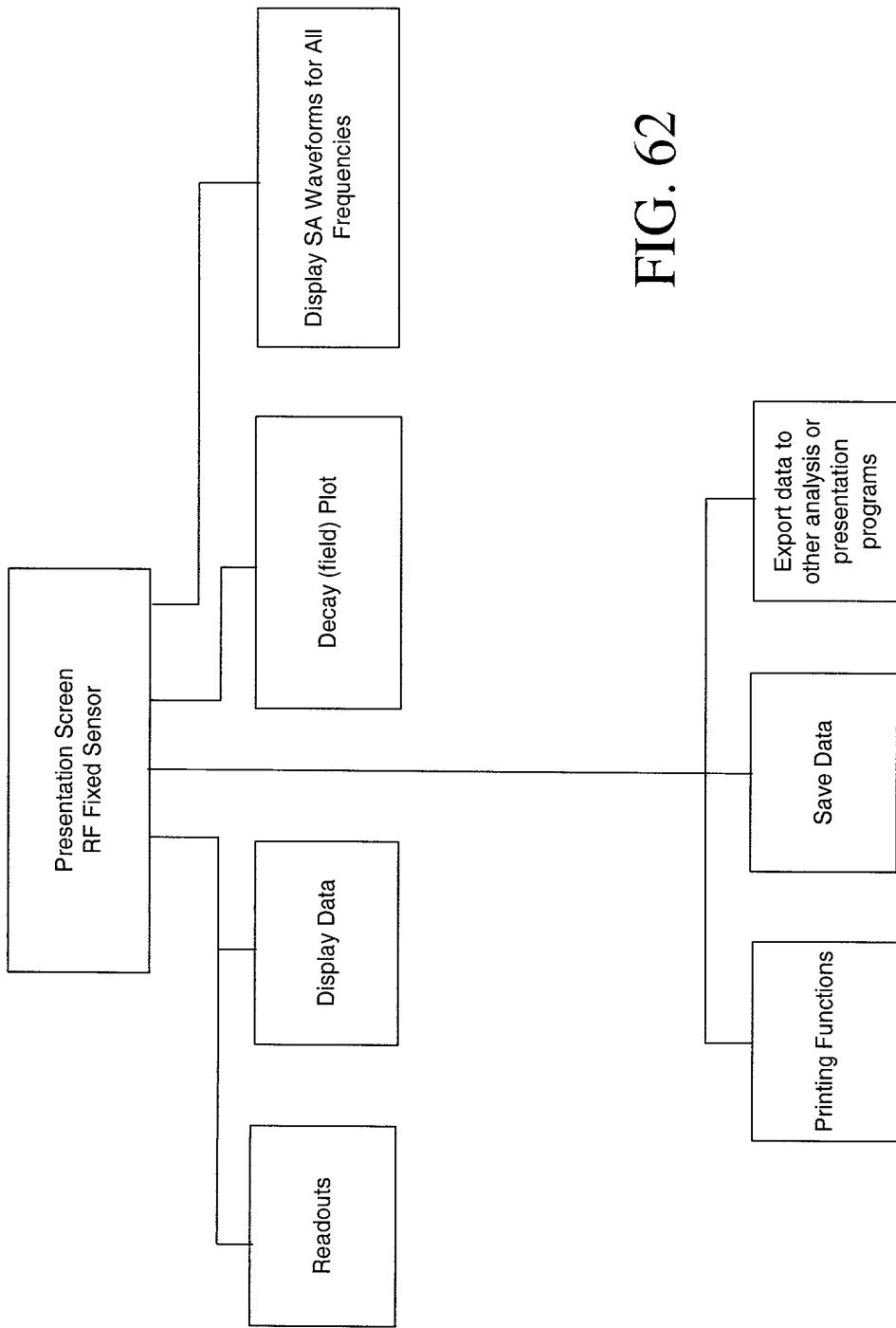
To Presentation

DC Field Sensors

Exit

FIG. 61

FIG. 62



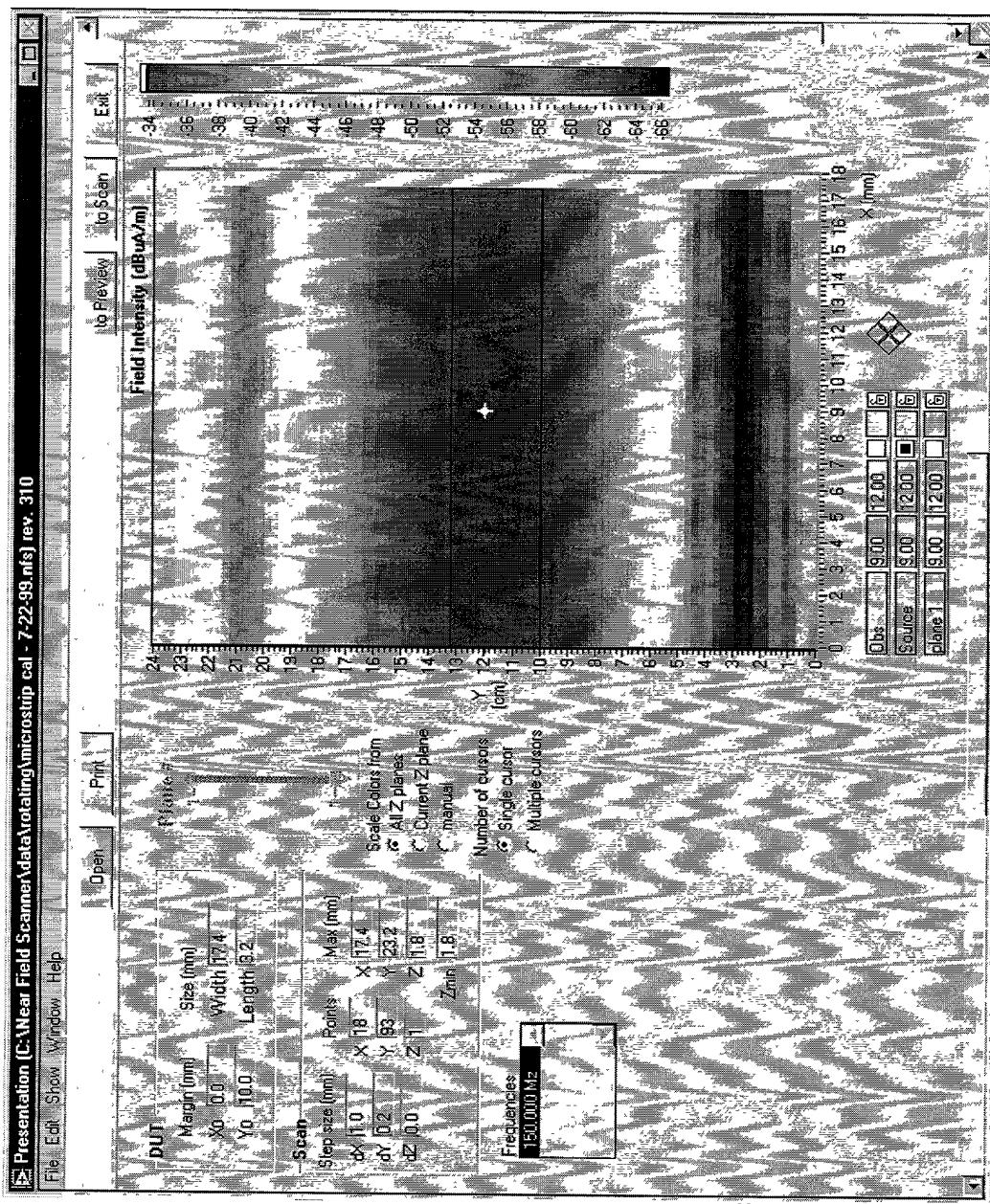


FIG. 63

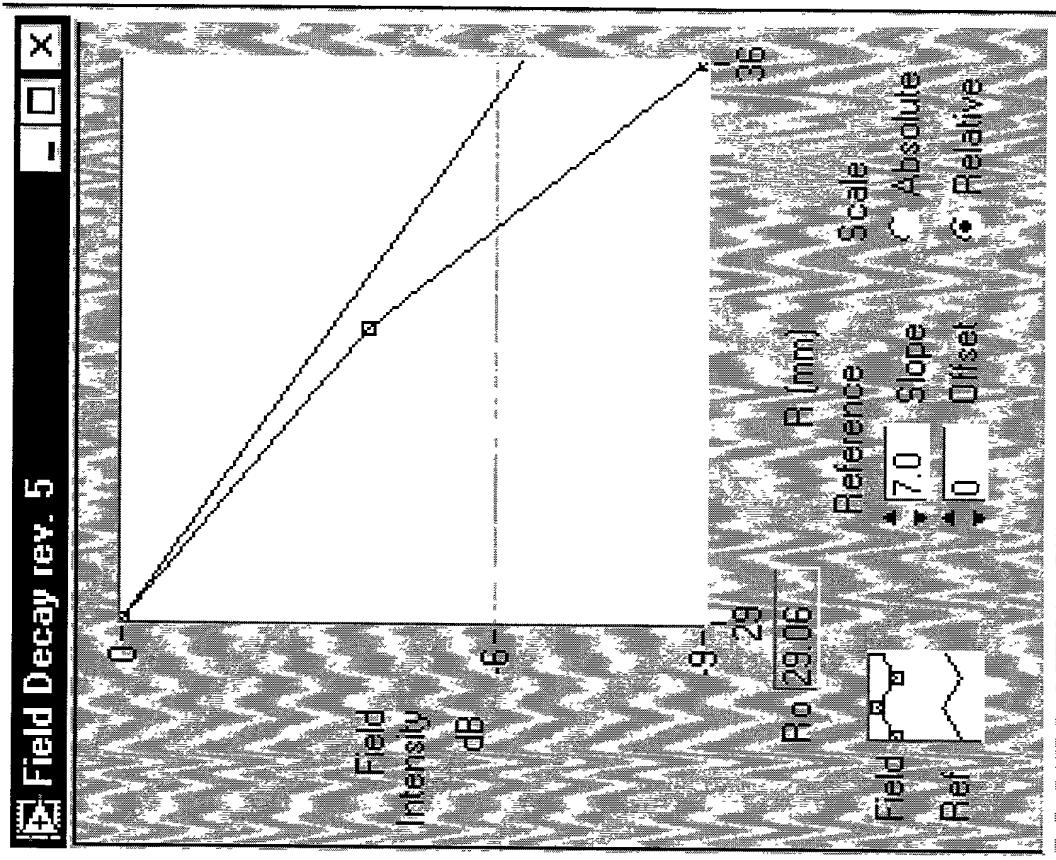


FIG. 64

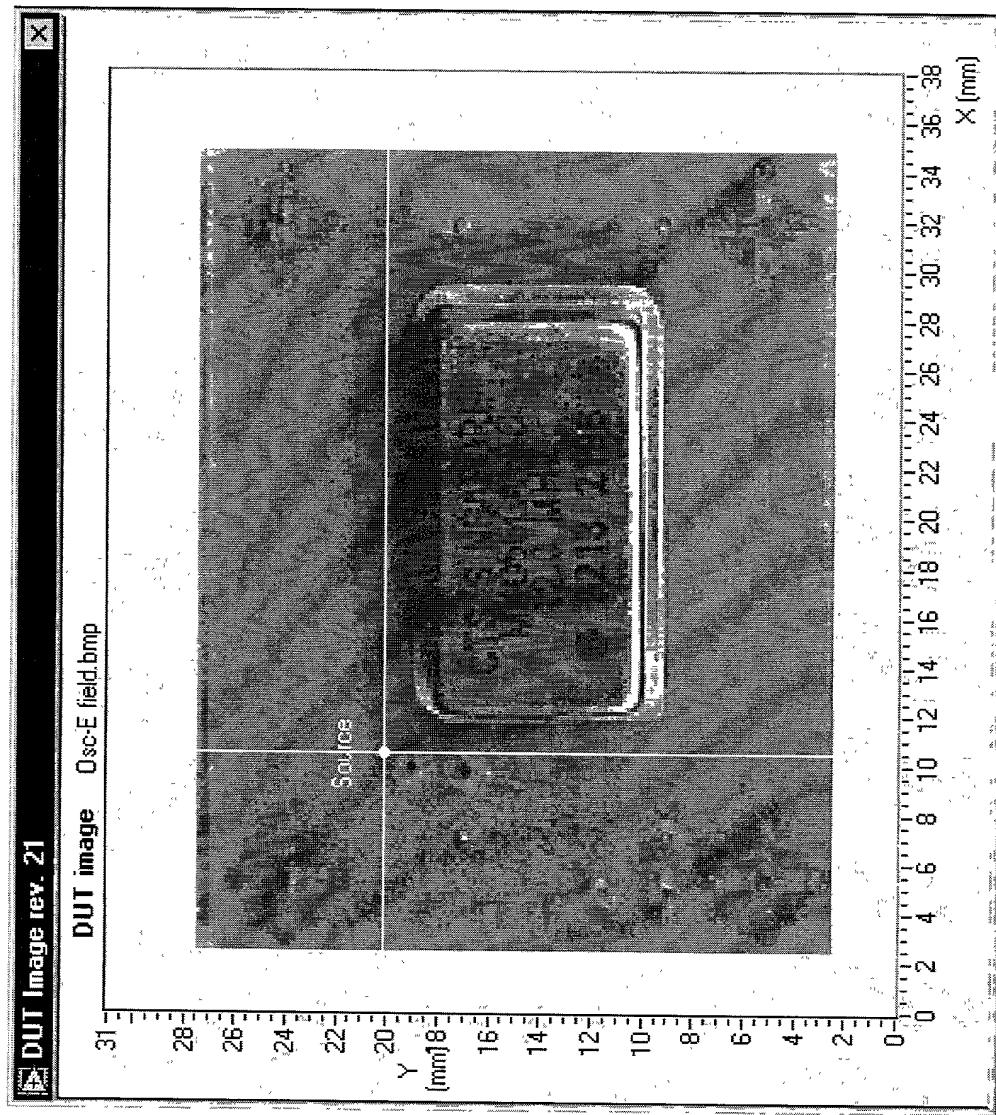


FIG. 65

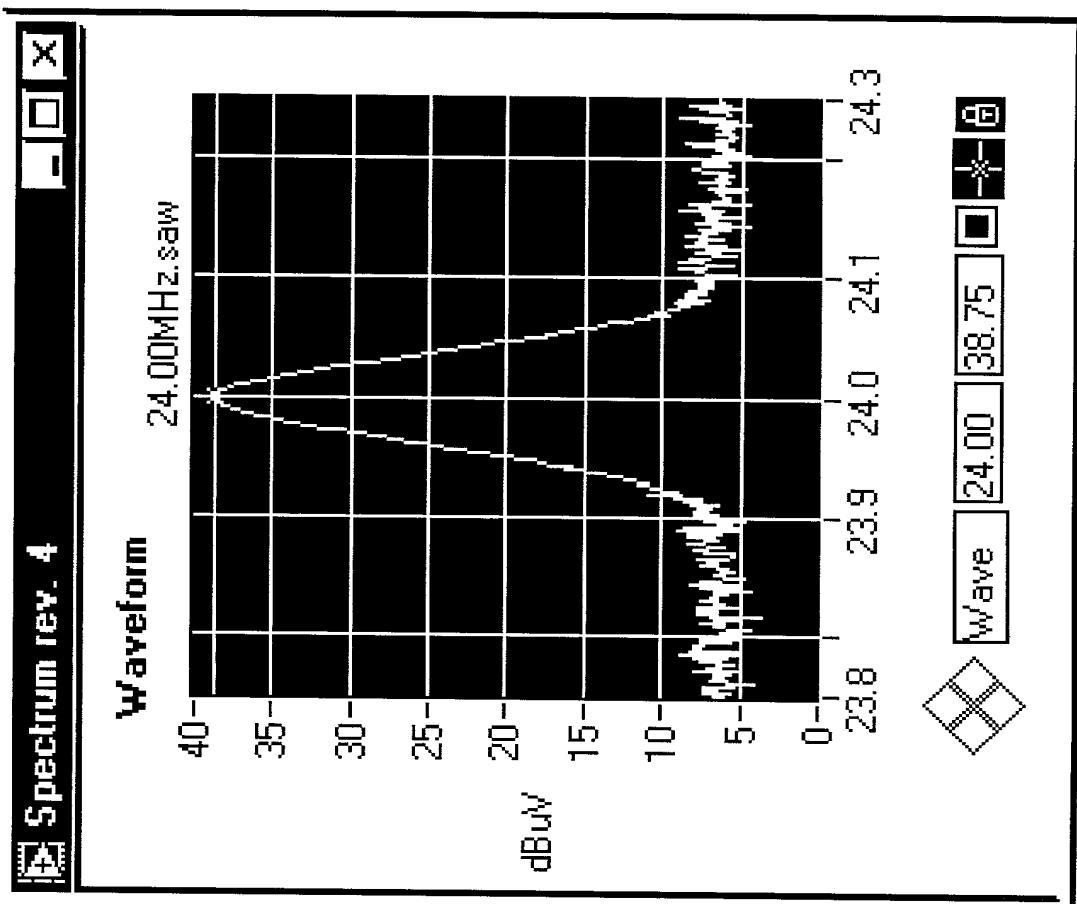


FIG. 66

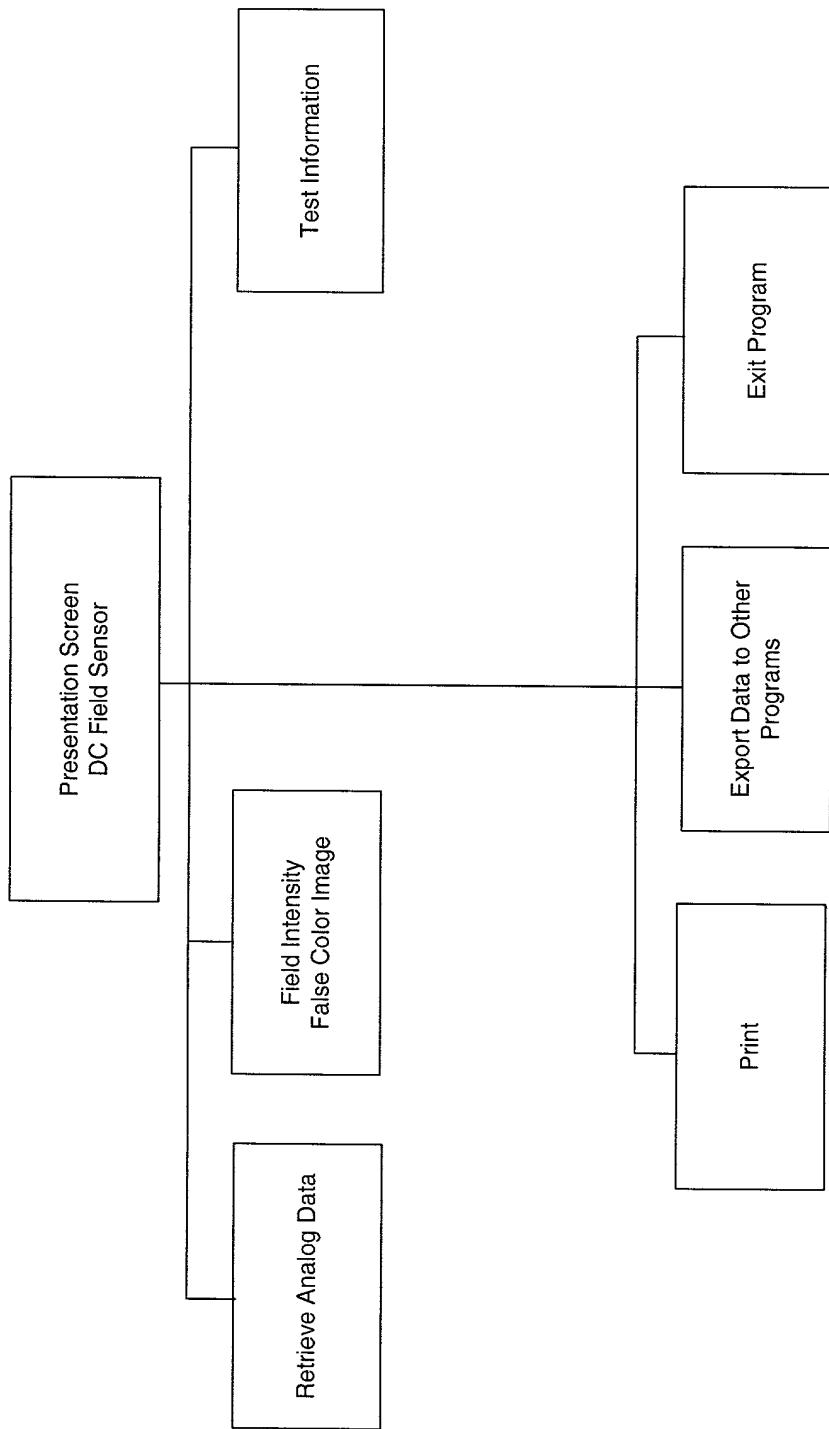


FIG. 67

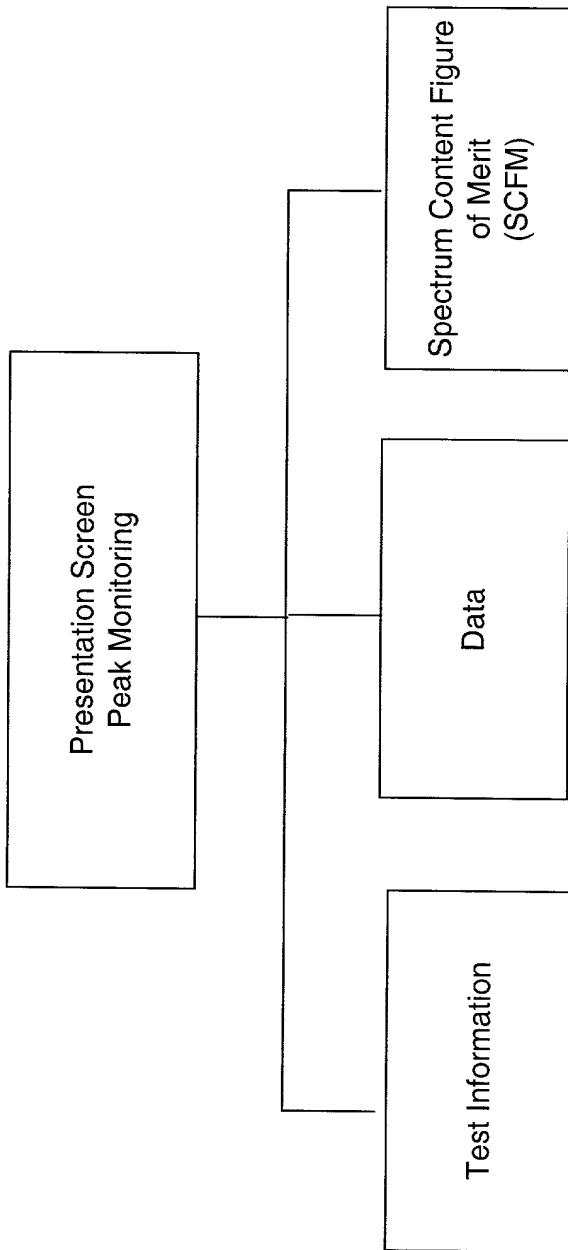


FIG. 68

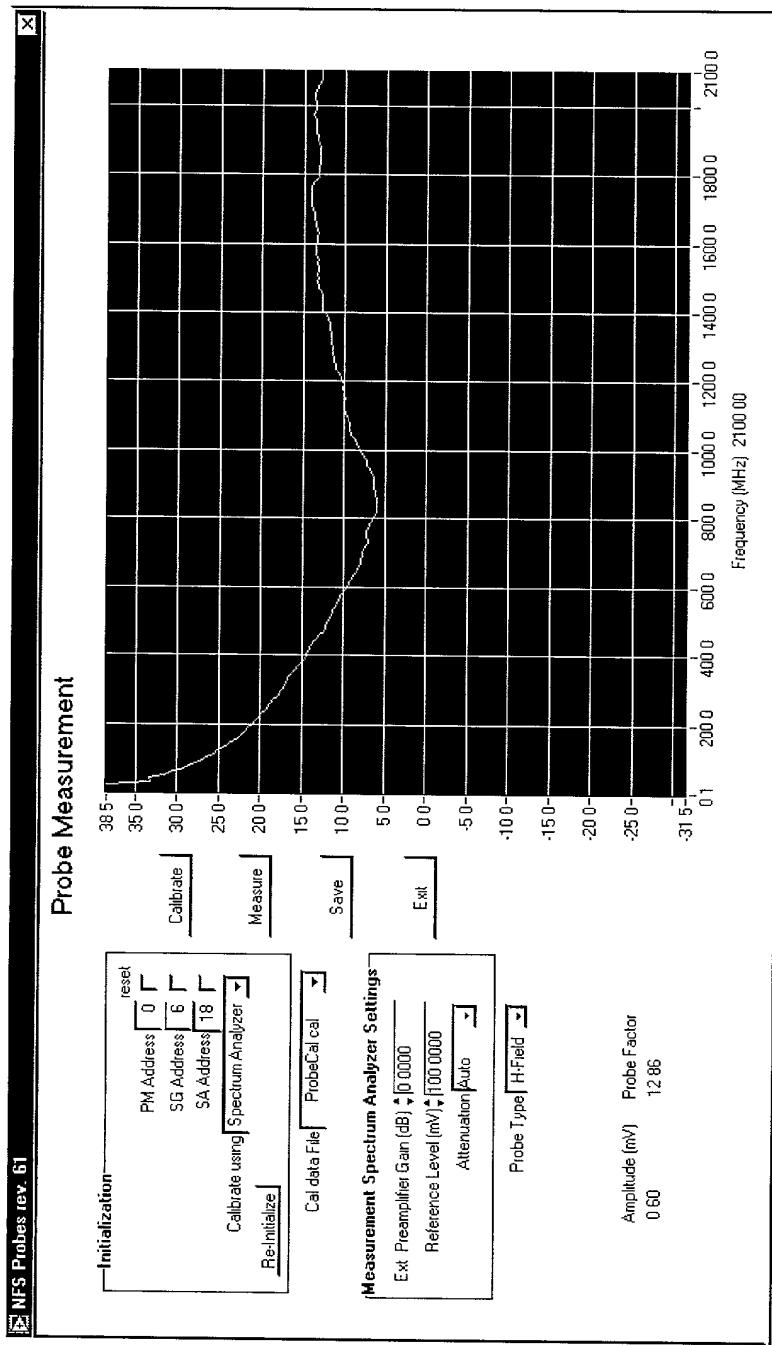


FIG. 69

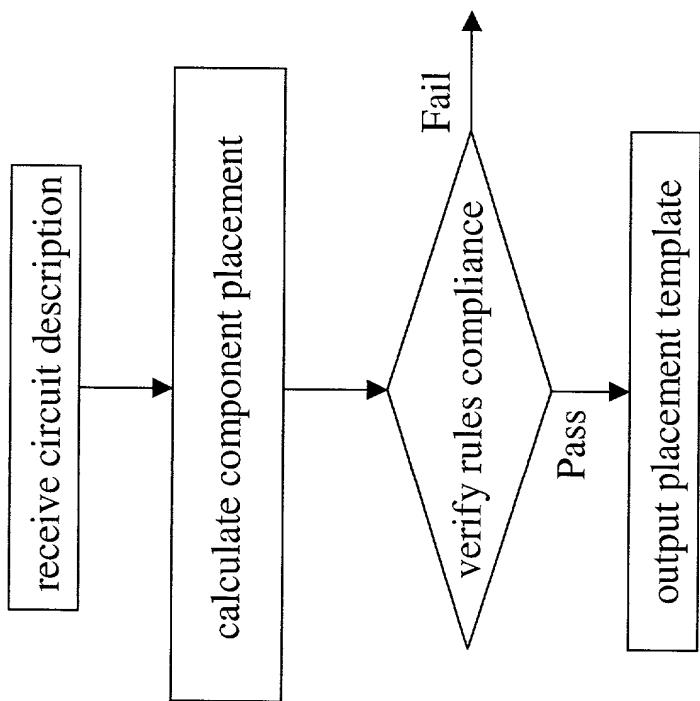


FIG. 70 (RELATED ART)

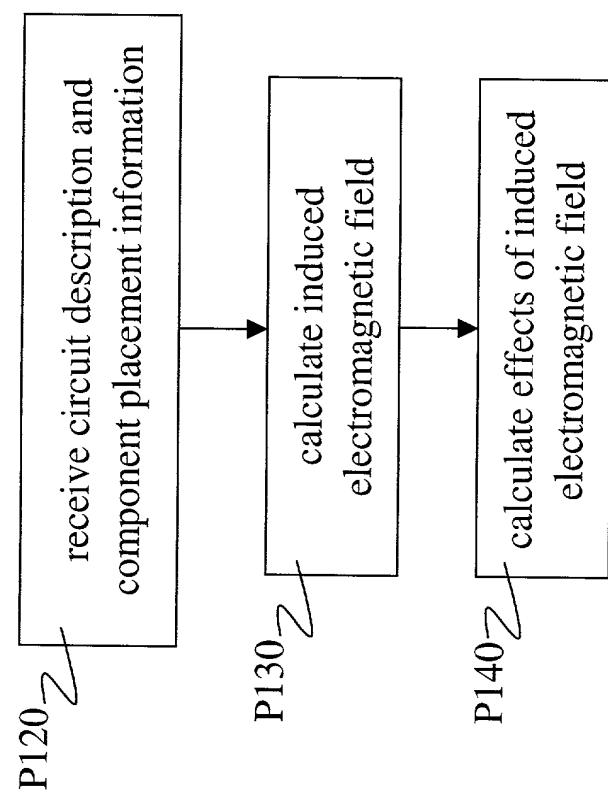


FIG. 71

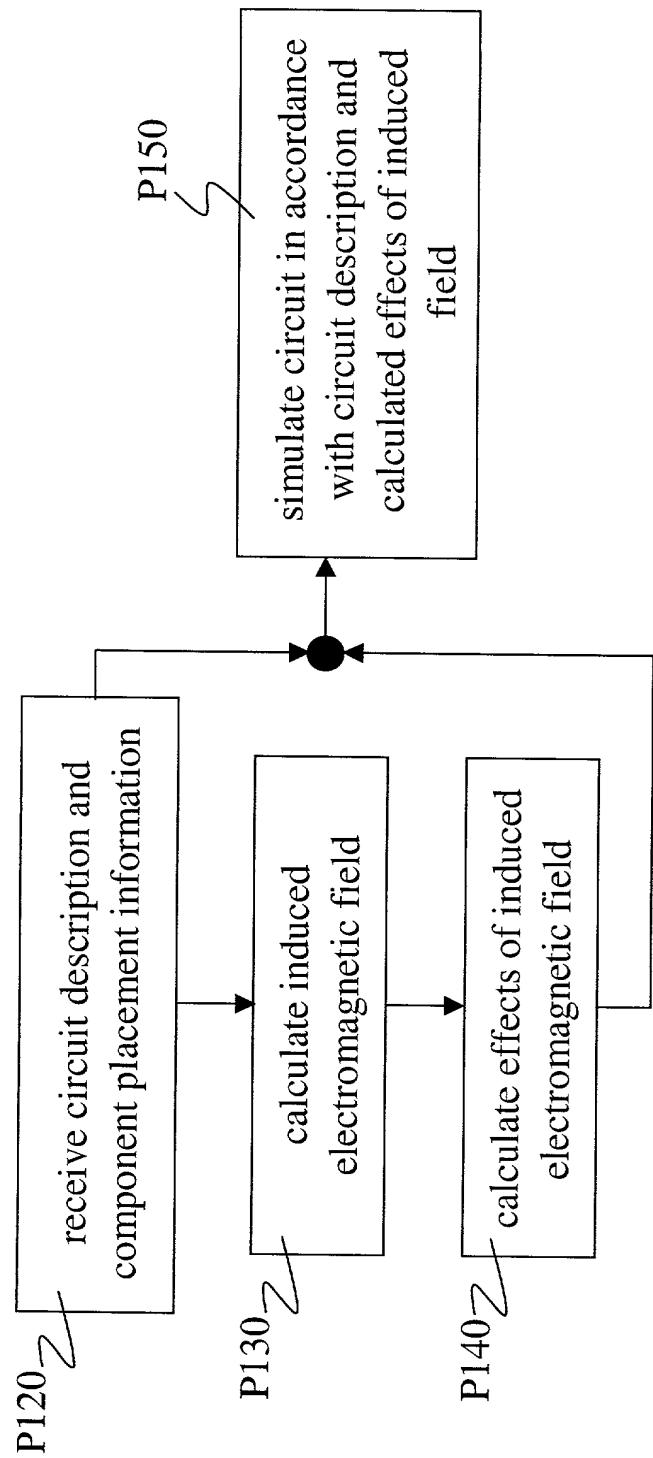


FIG. 72

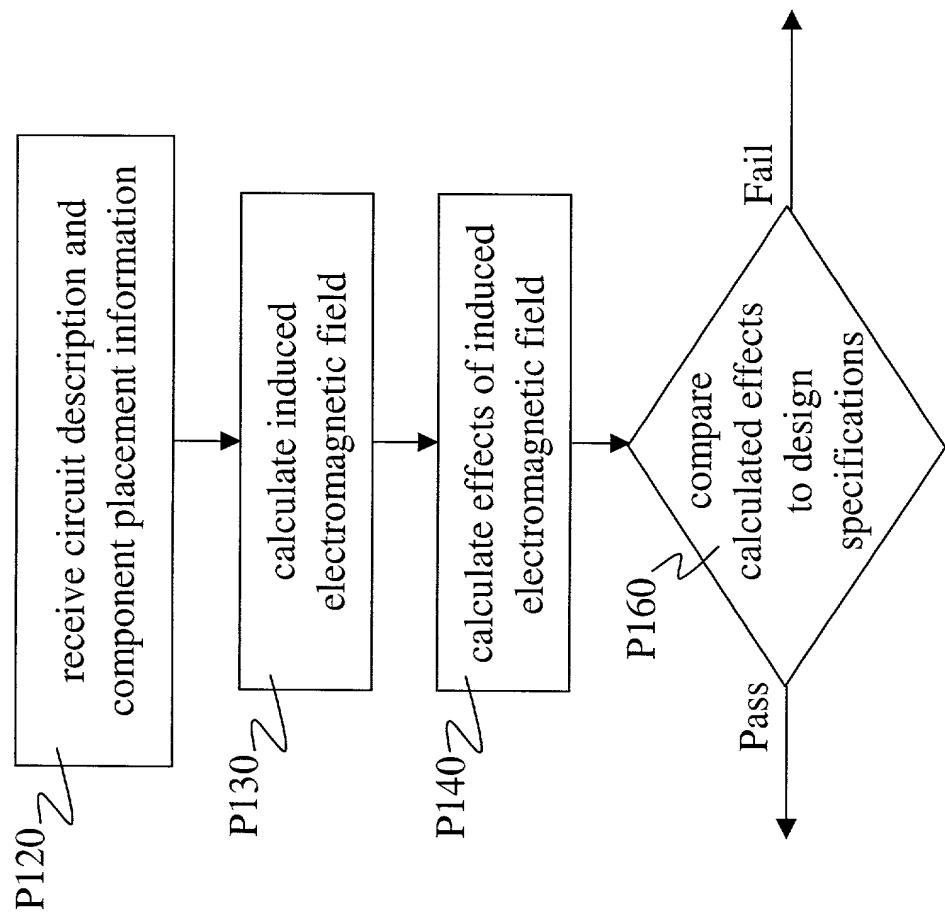


FIG. 73

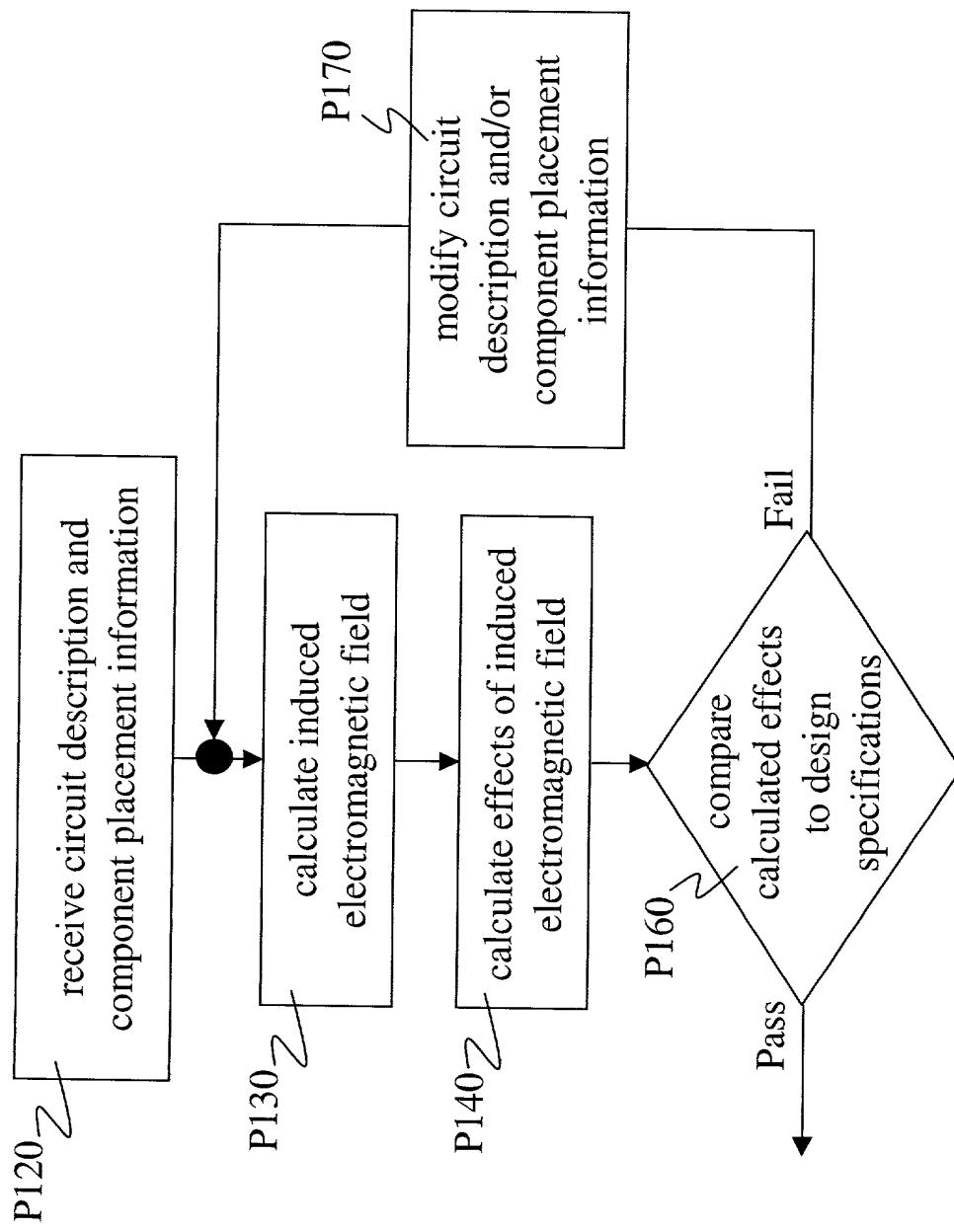


FIG. 74

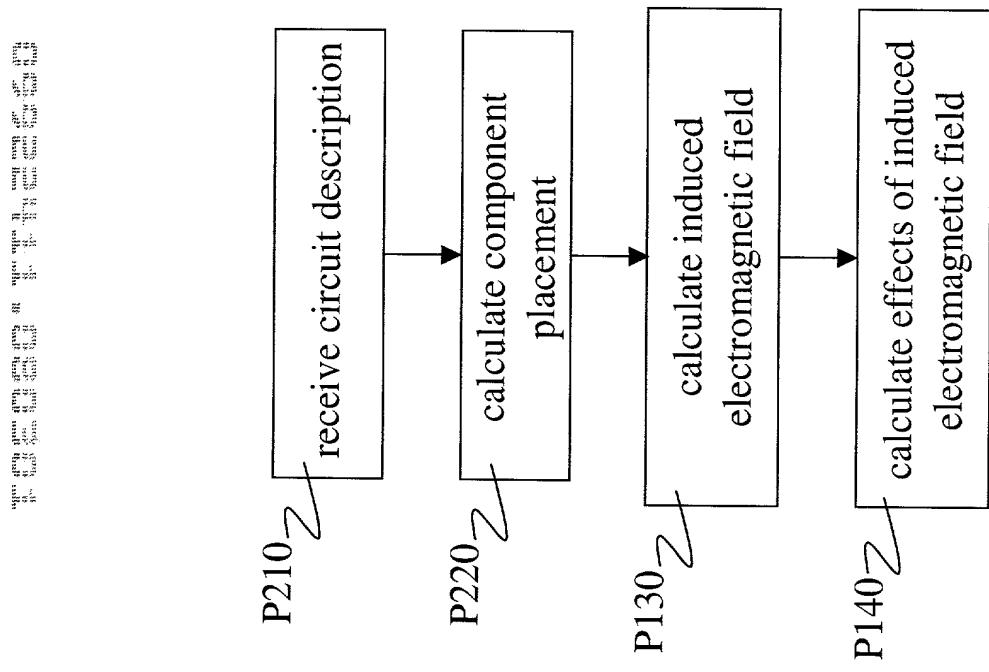


FIG. 75

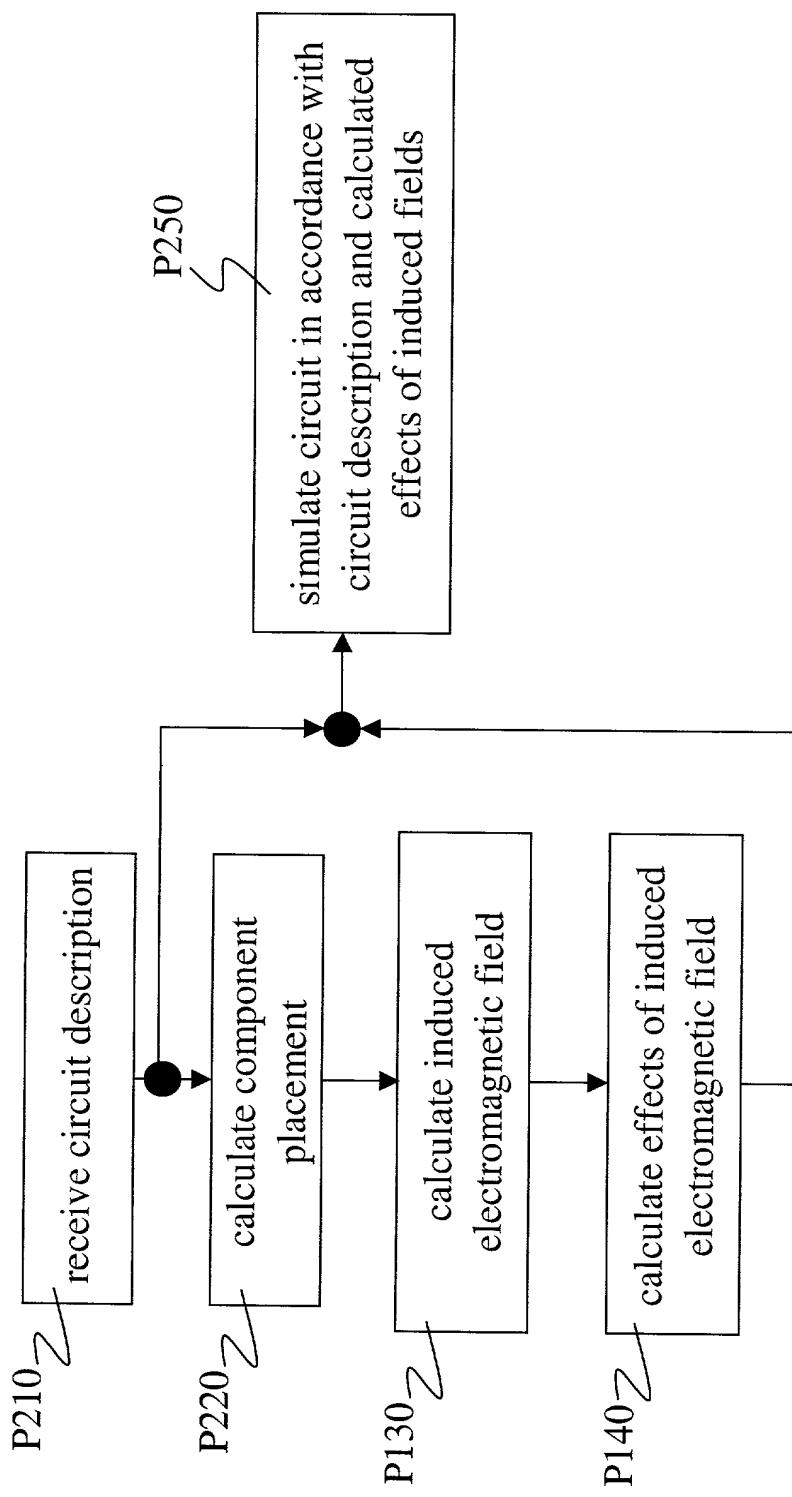


FIG. 76

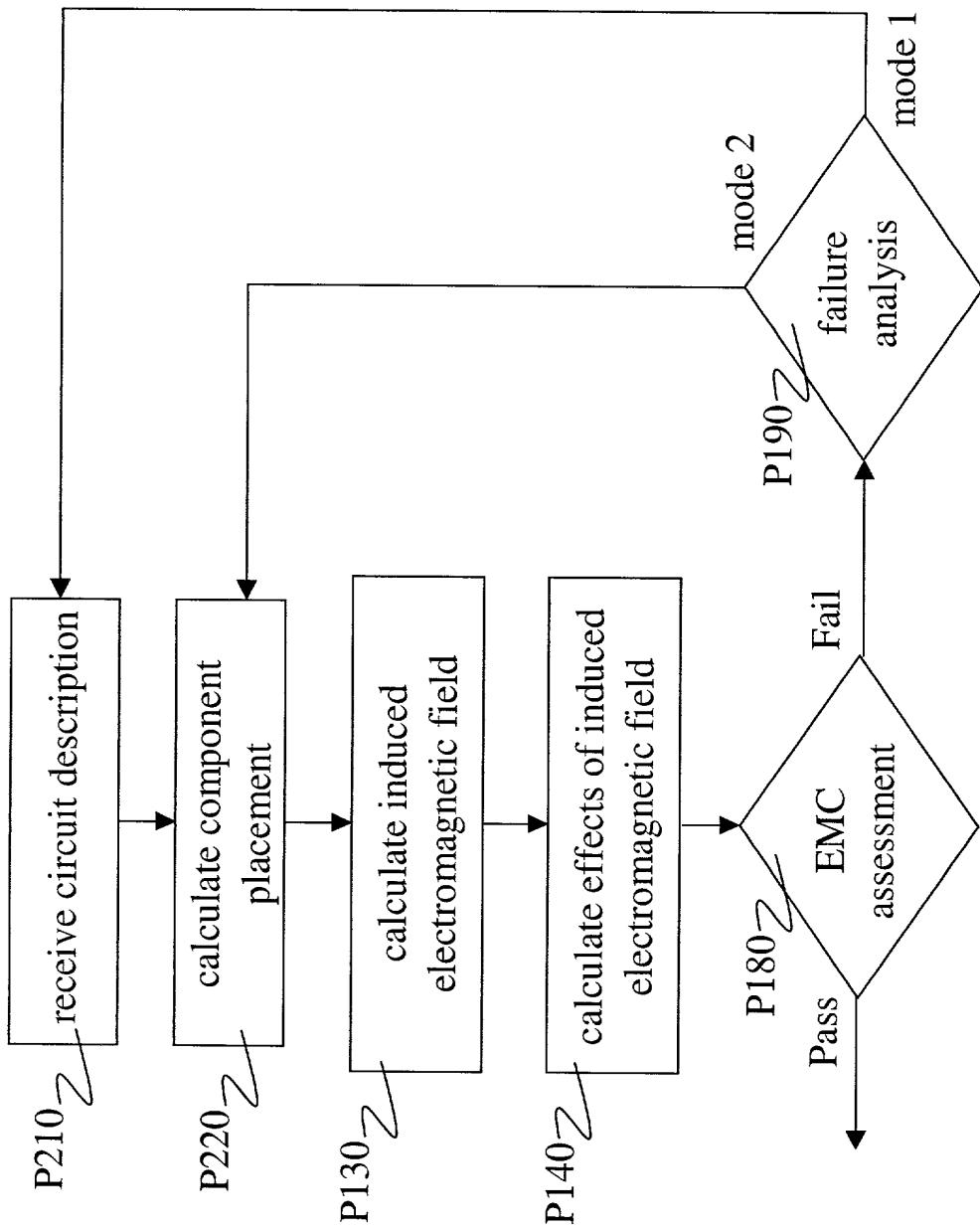


FIG. 77

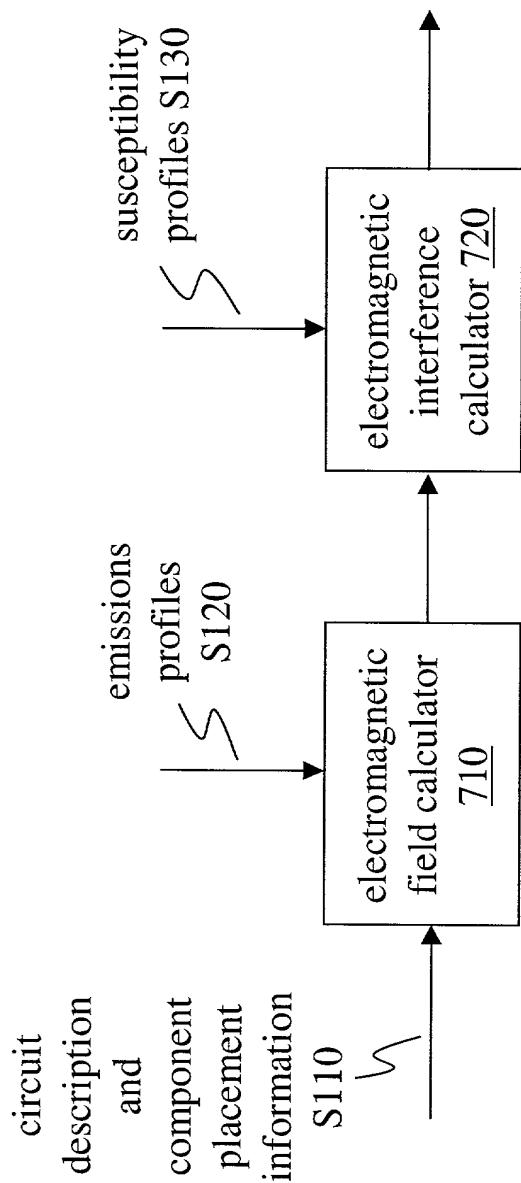


FIG. 78

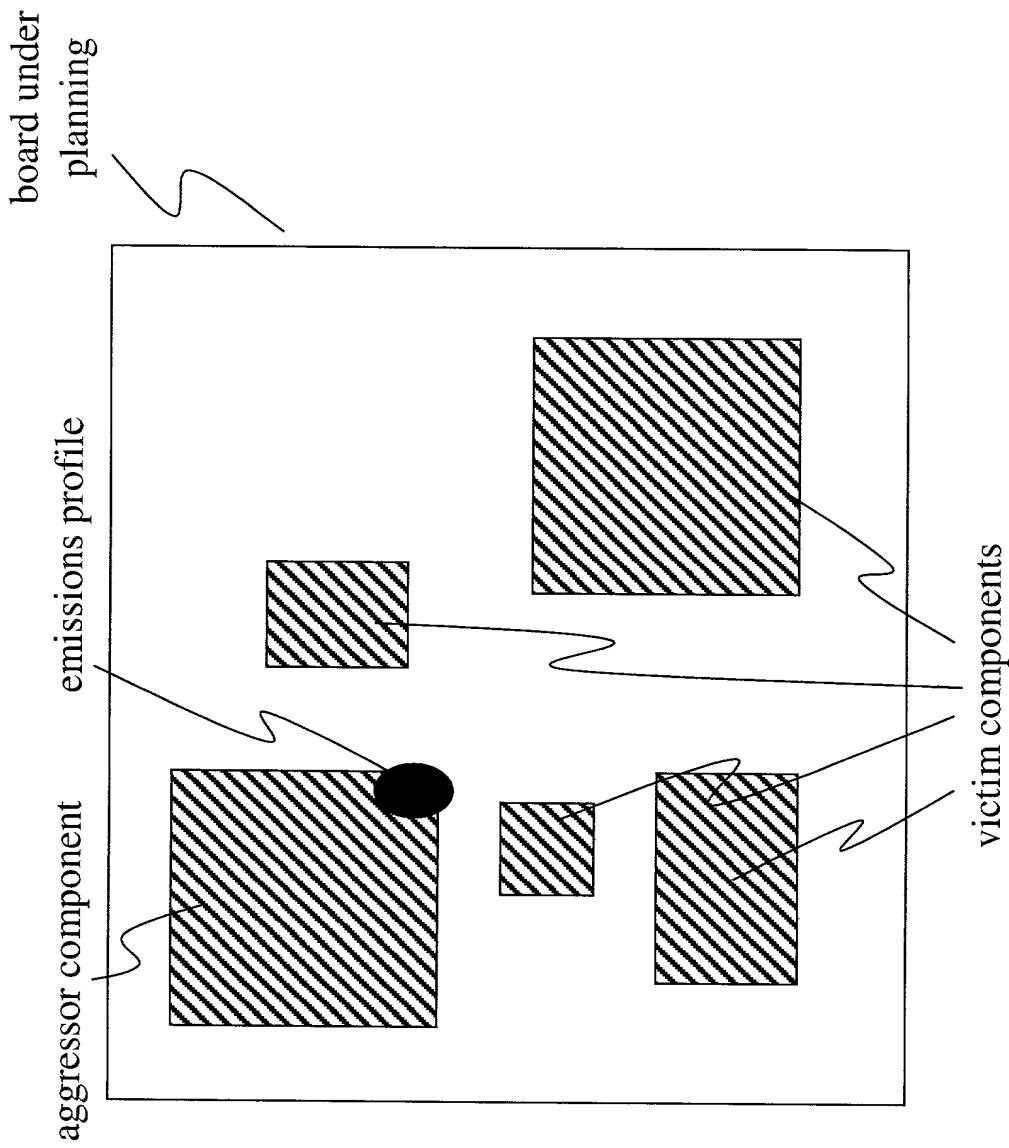


FIG. 79

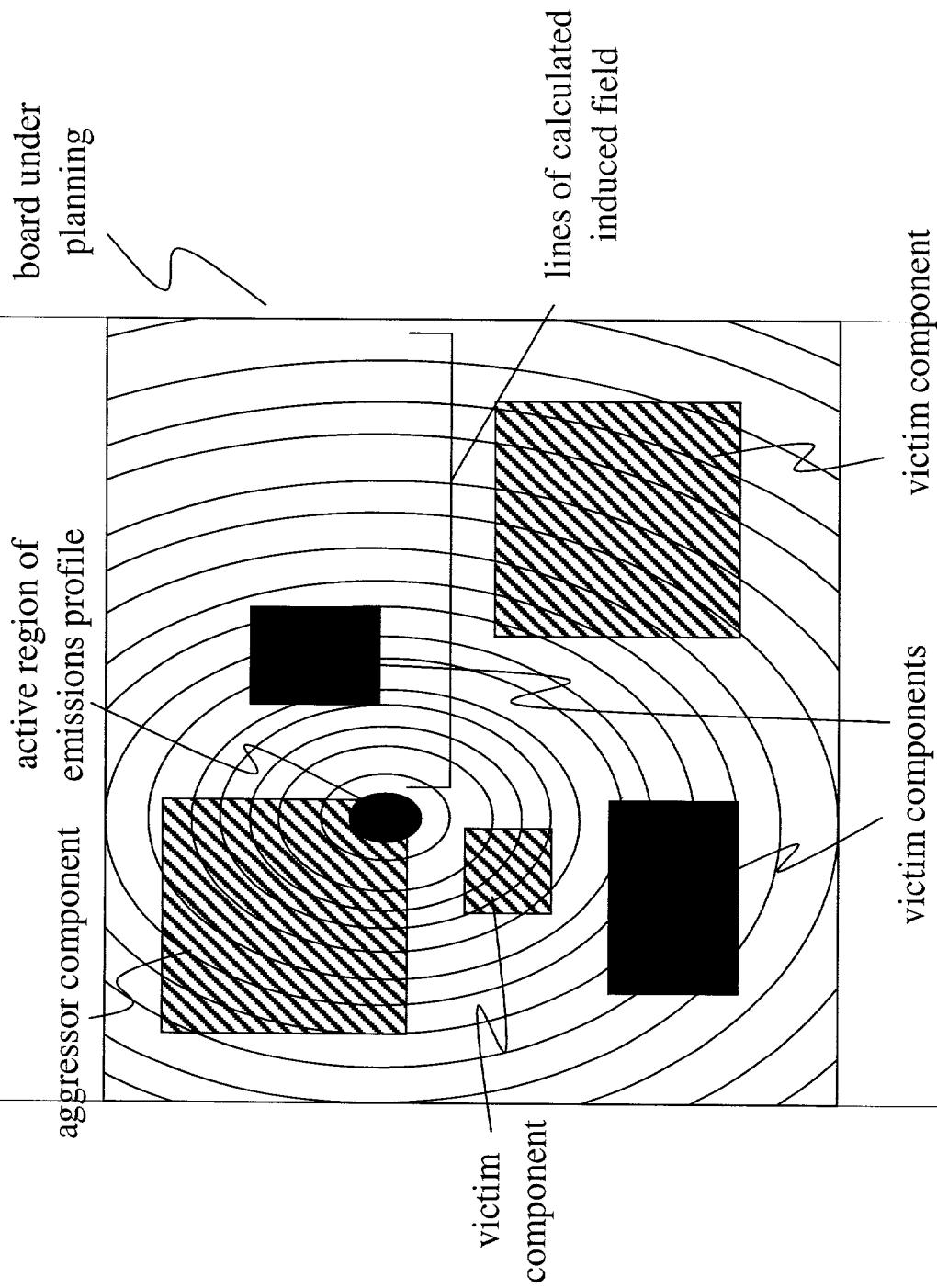


FIG. 80

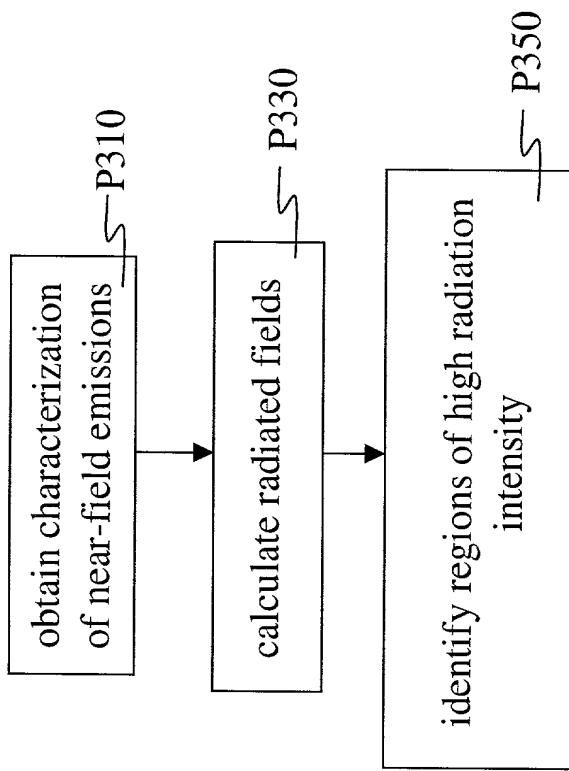


FIG. 81

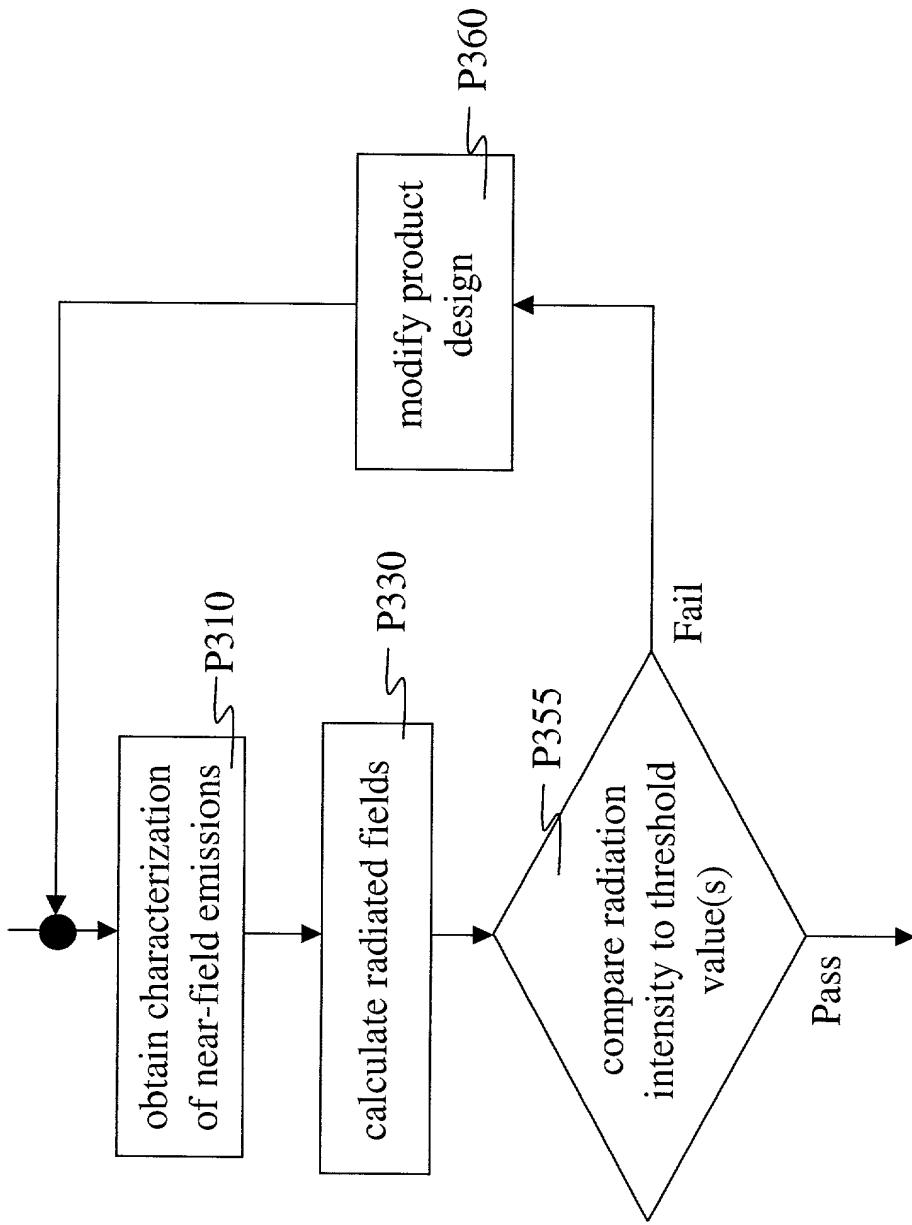


FIG. 82

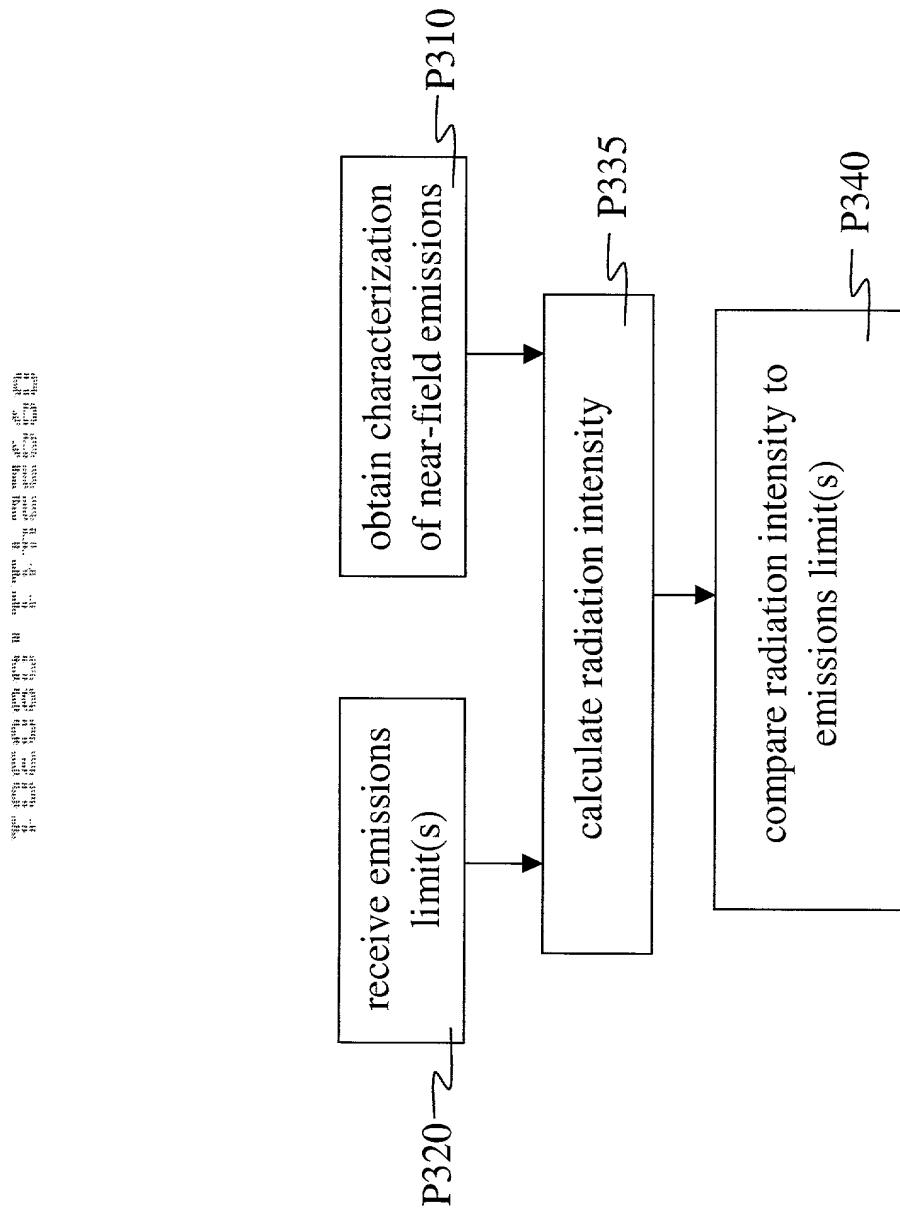


FIG. 83

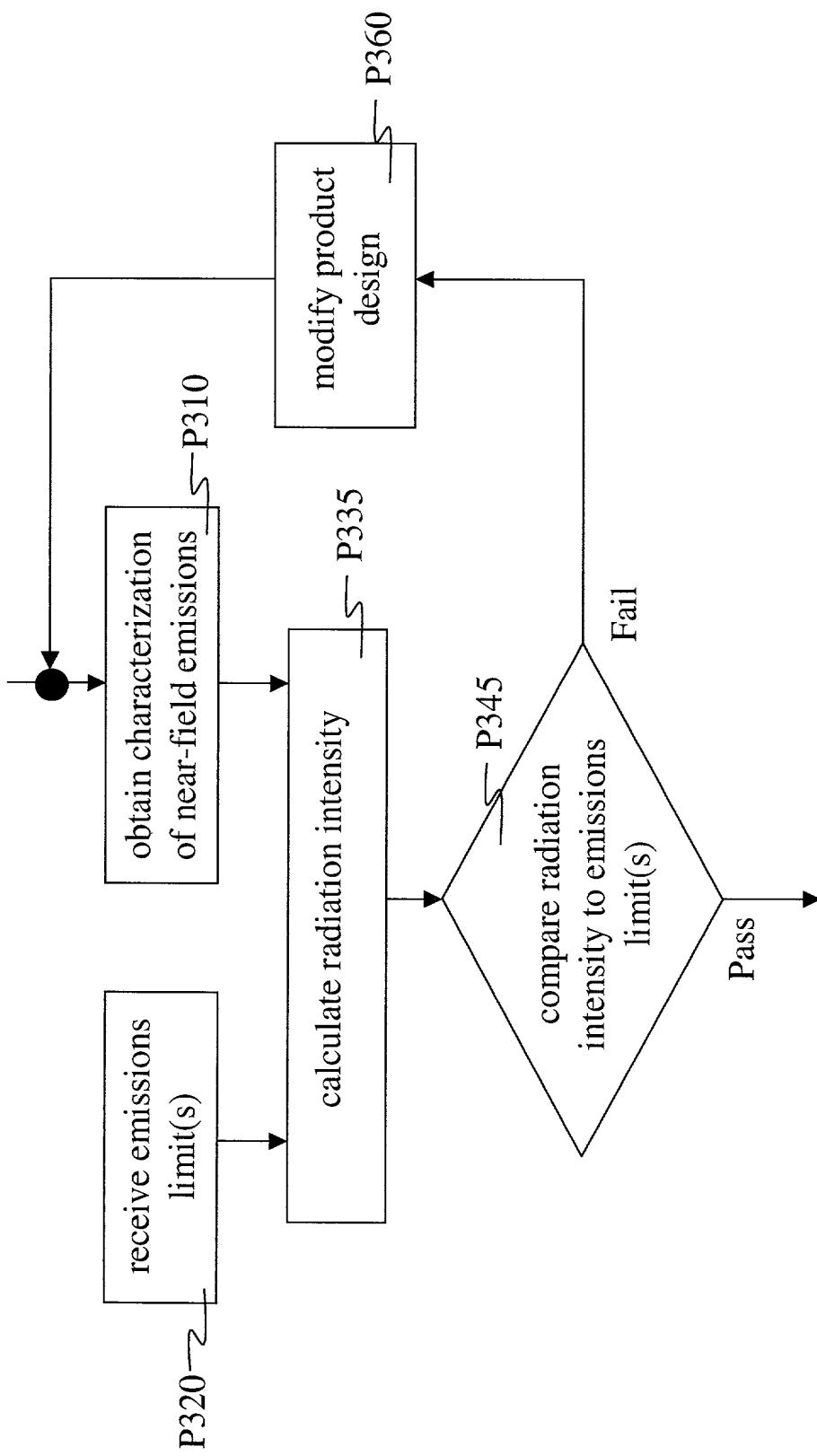


FIG. 84

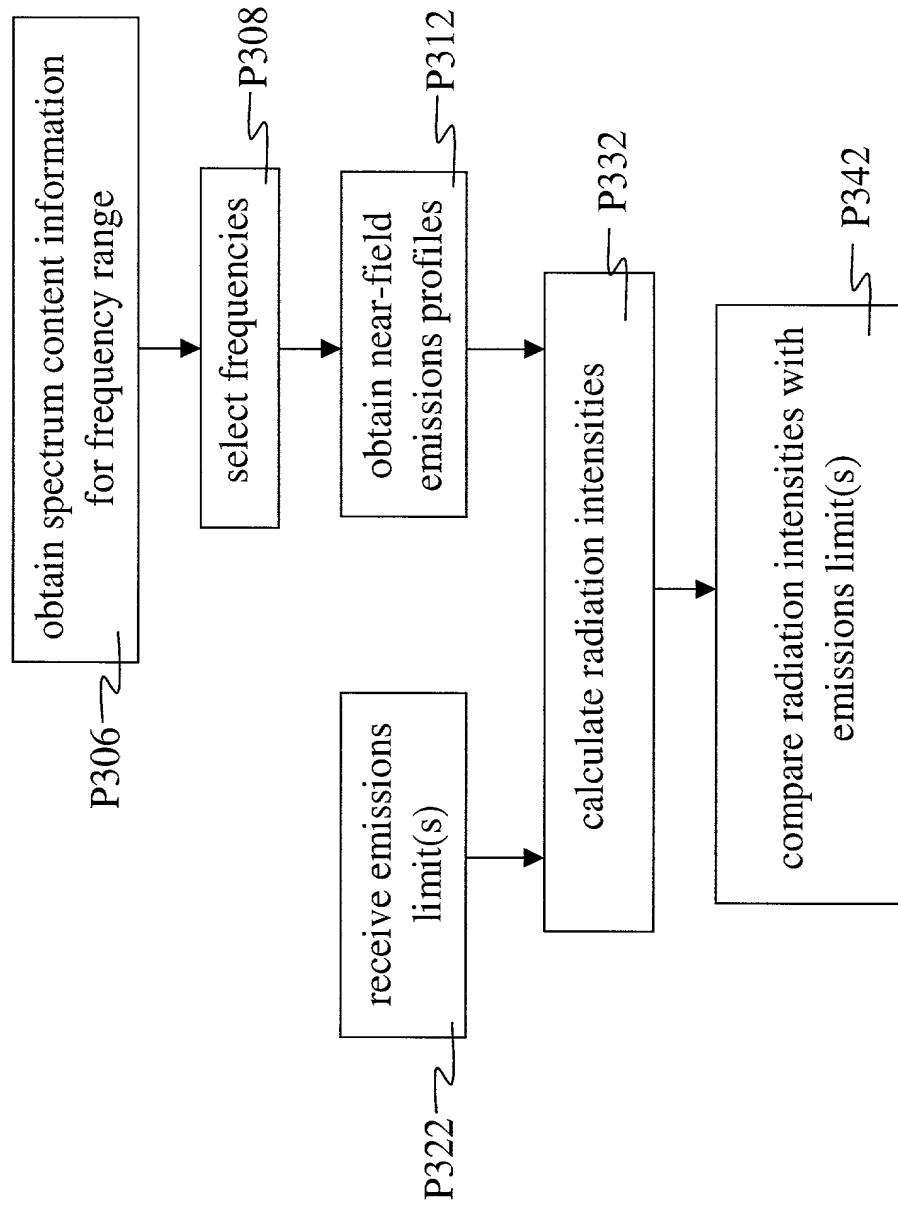


FIG. 85

Figure 86. Results of the numerical simulation of the magnetic field and the intensity of the magnetic field in the region of the plasma channel.

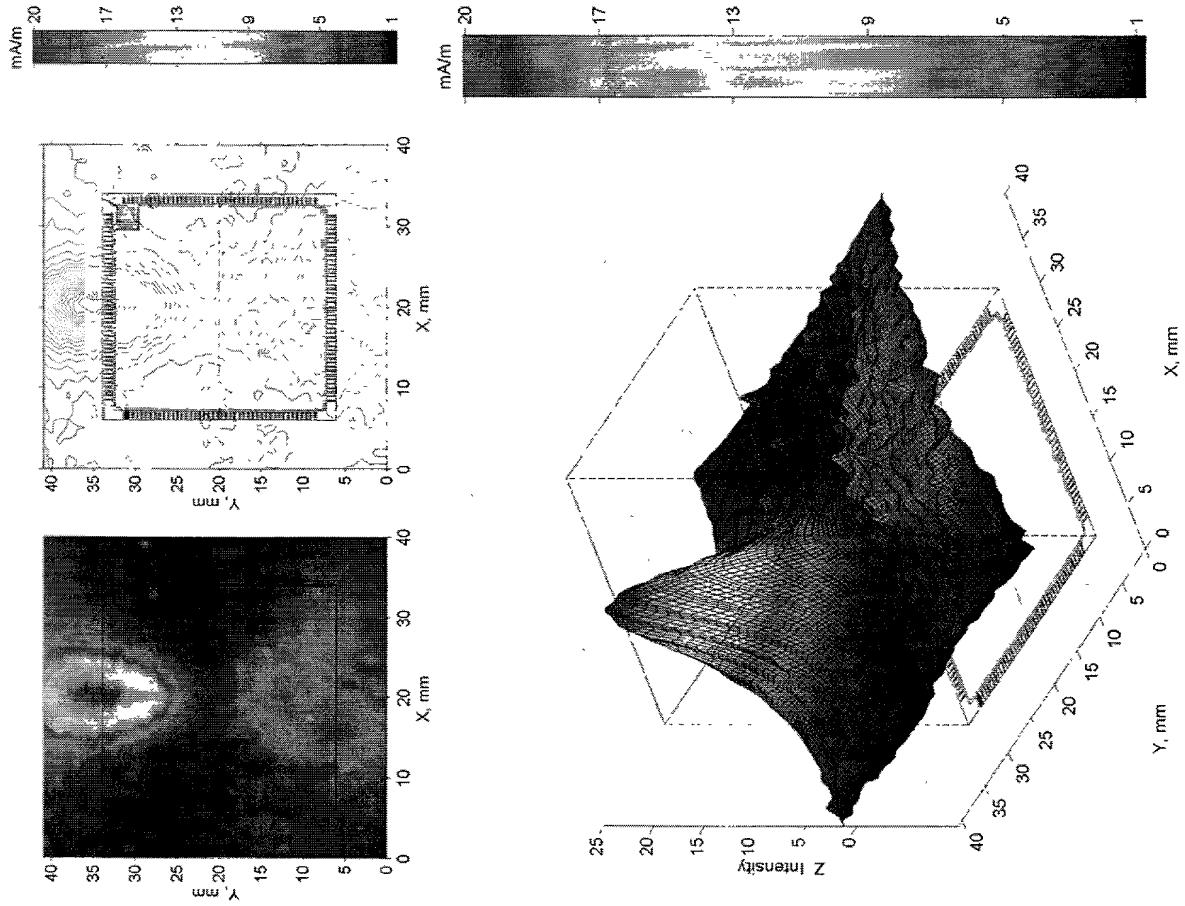


FIG. 86

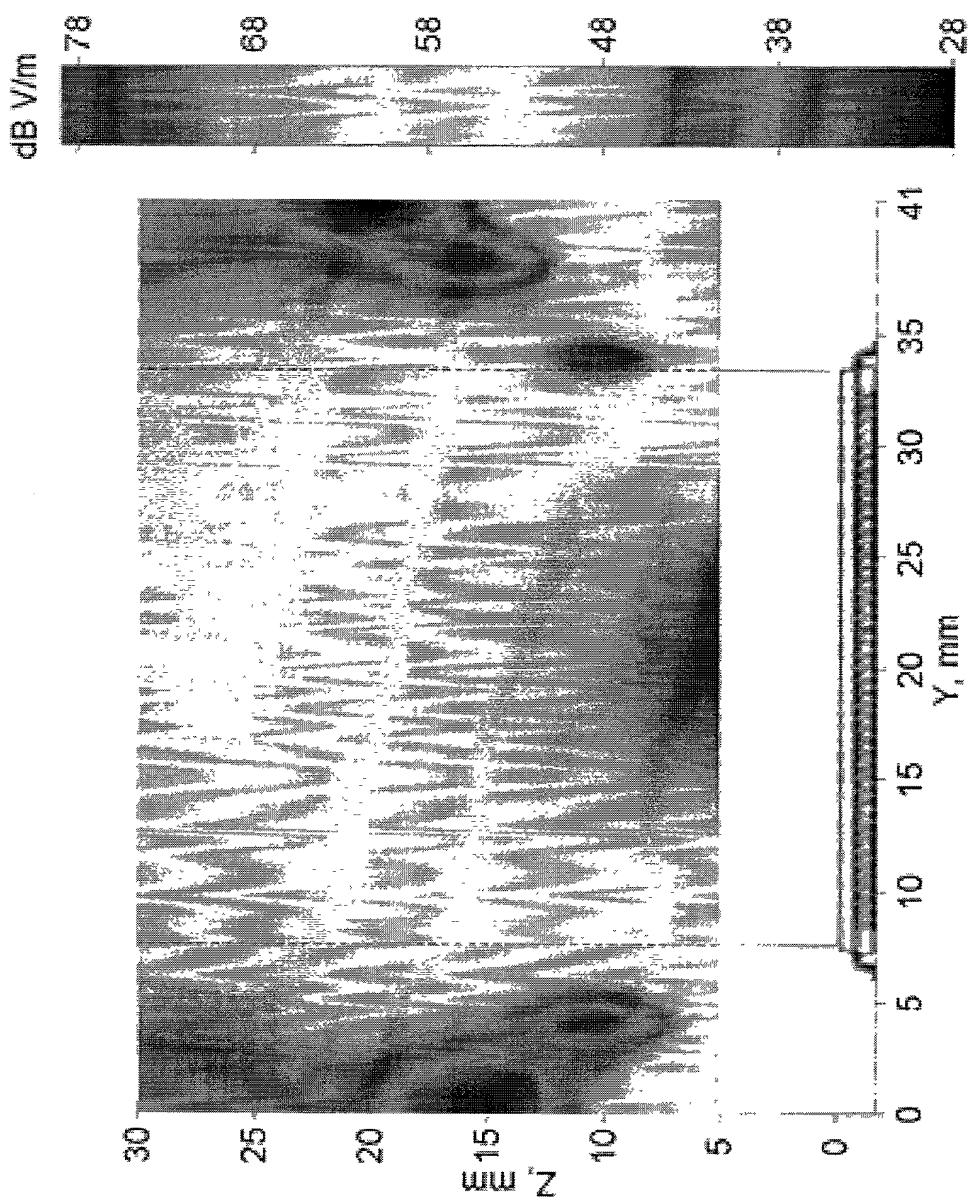
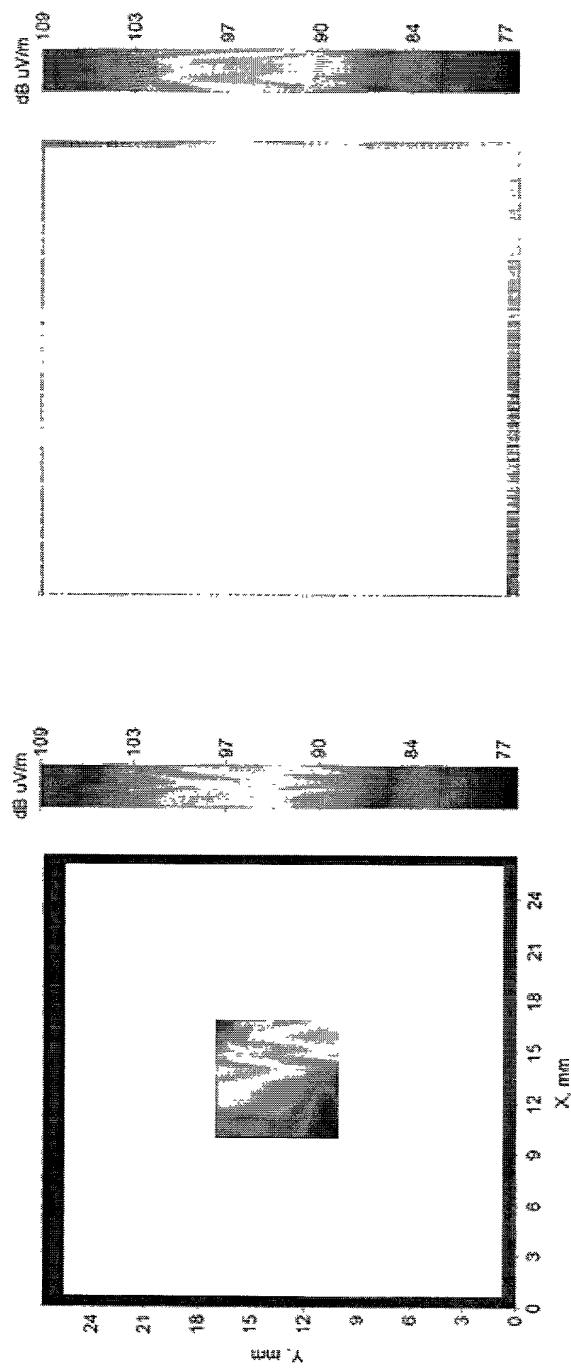


FIG. 87

FIG. 88



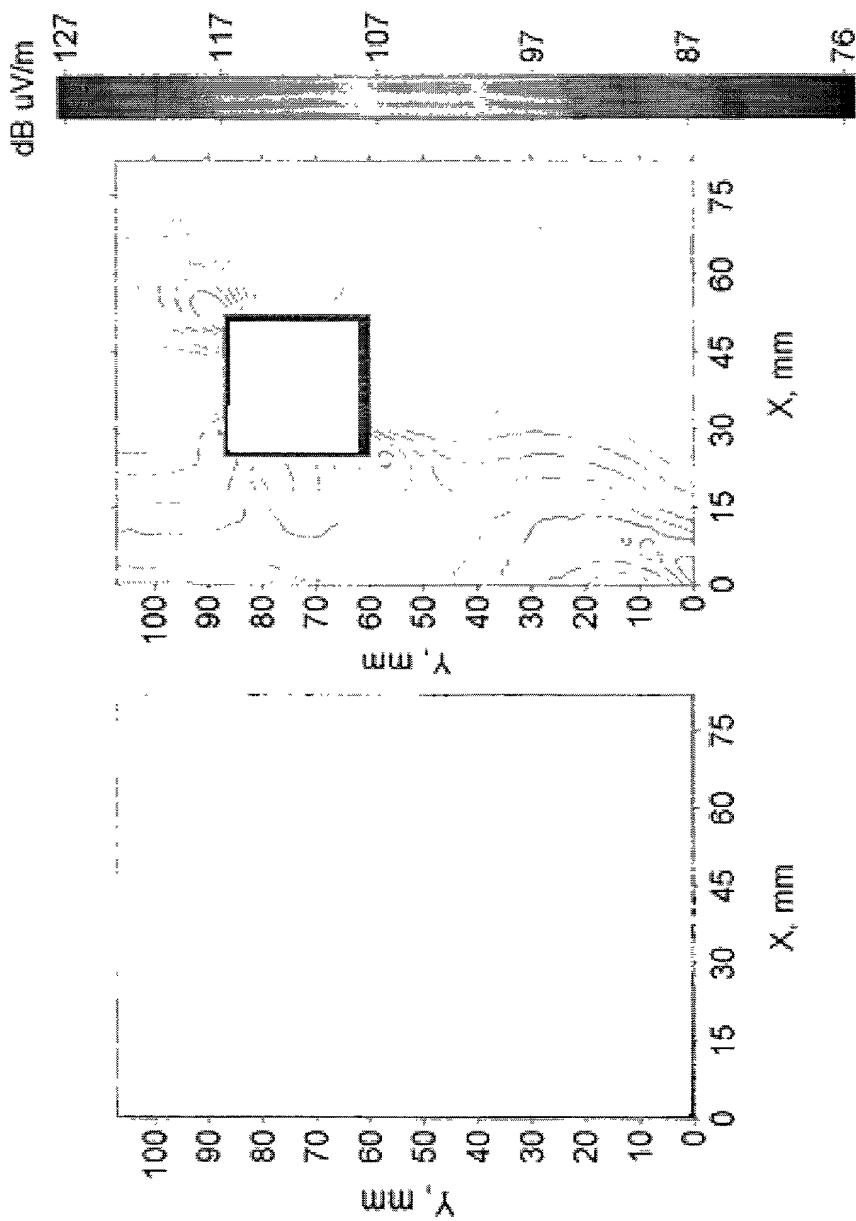


FIG. 89

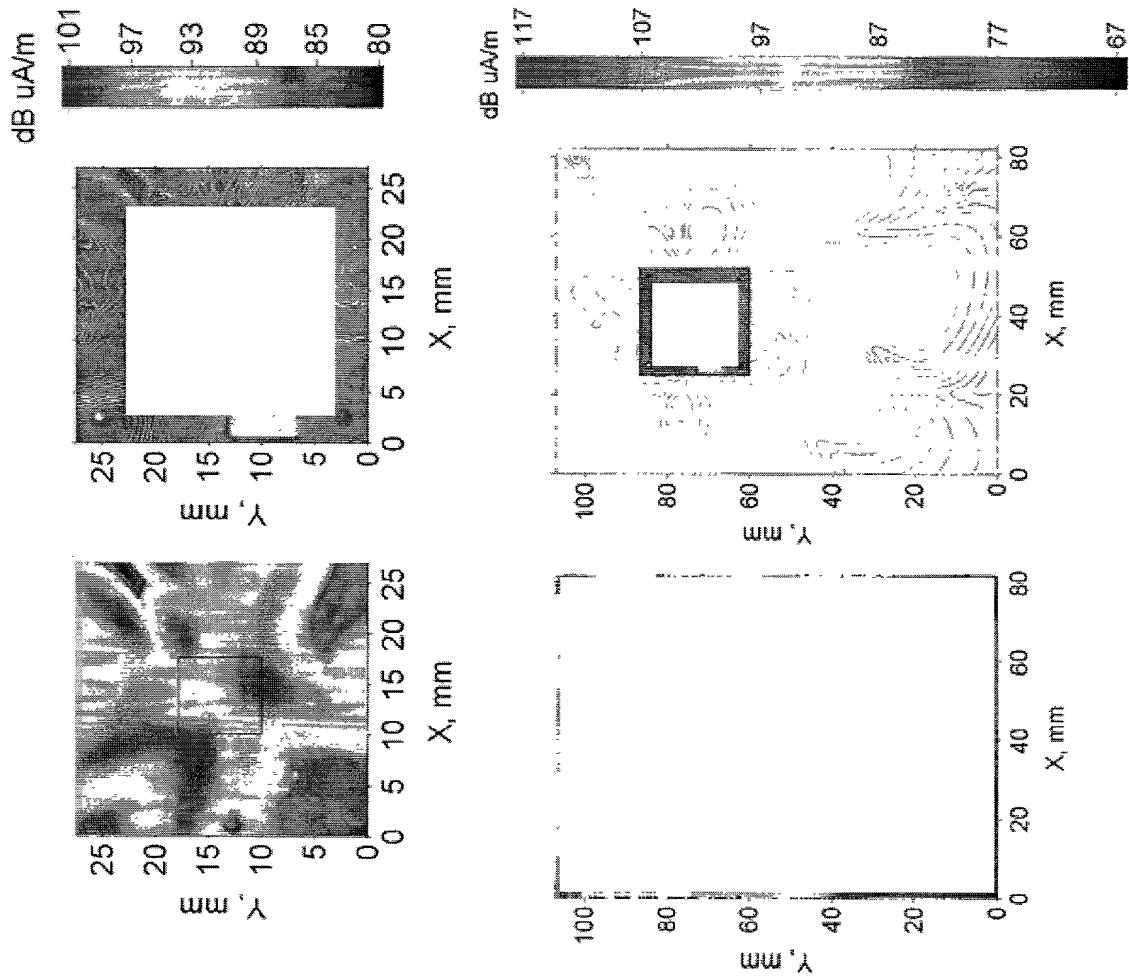


FIG. 90

Substrate Fracture Area

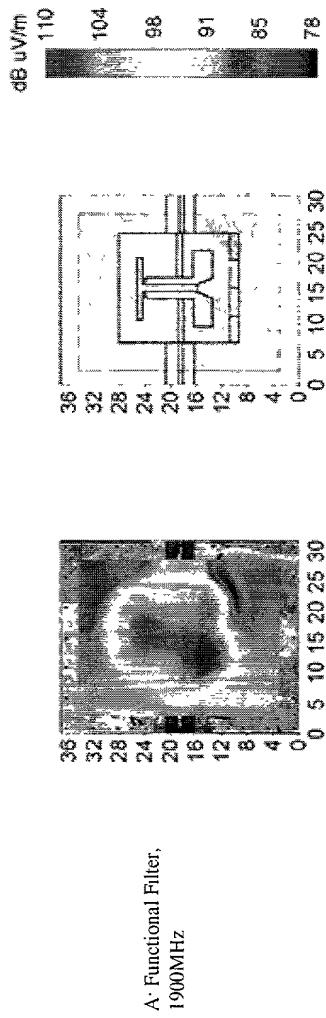


FIG. 91

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.2 3.4 3.6 3.8 4.0 4.2 4.4 4.6 4.8 5.0 5.2 5.4 5.6 5.8 6.0 6.2 6.4 6.6 6.8 7.0 7.2 7.4 7.6 7.8 8.0 8.2 8.4 8.6 8.8 9.0 9.2 9.4 9.6 9.8 10.0 10.2 10.4 10.6 10.8 11.0 11.2 11.4 11.6 11.8 12.0 12.2 12.4 12.6 12.8 13.0 13.2 13.4 13.6 13.8 14.0 14.2 14.4 14.6 14.8 15.0 15.2 15.4 15.6 15.8 16.0

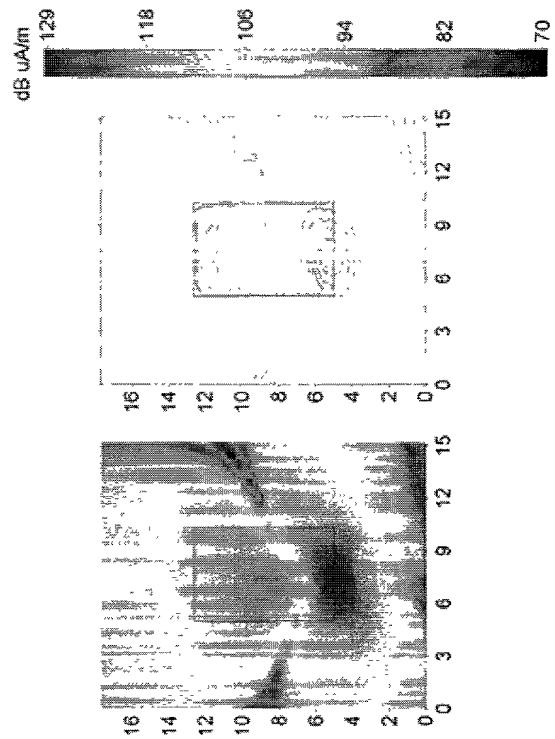
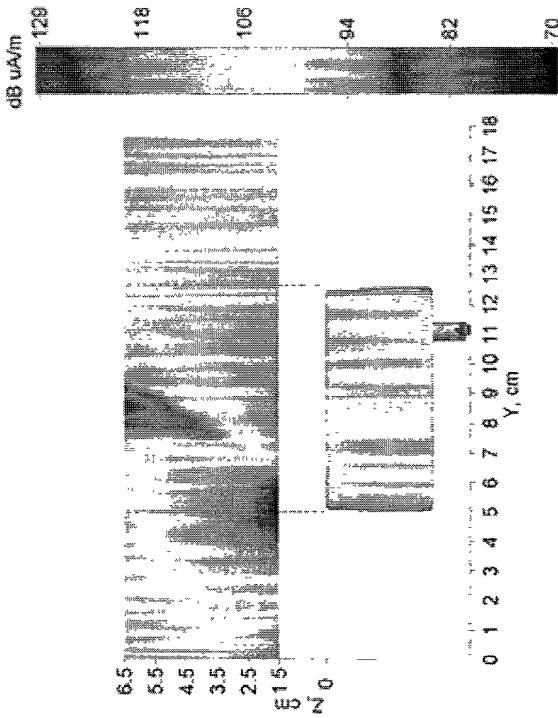


FIG. 92

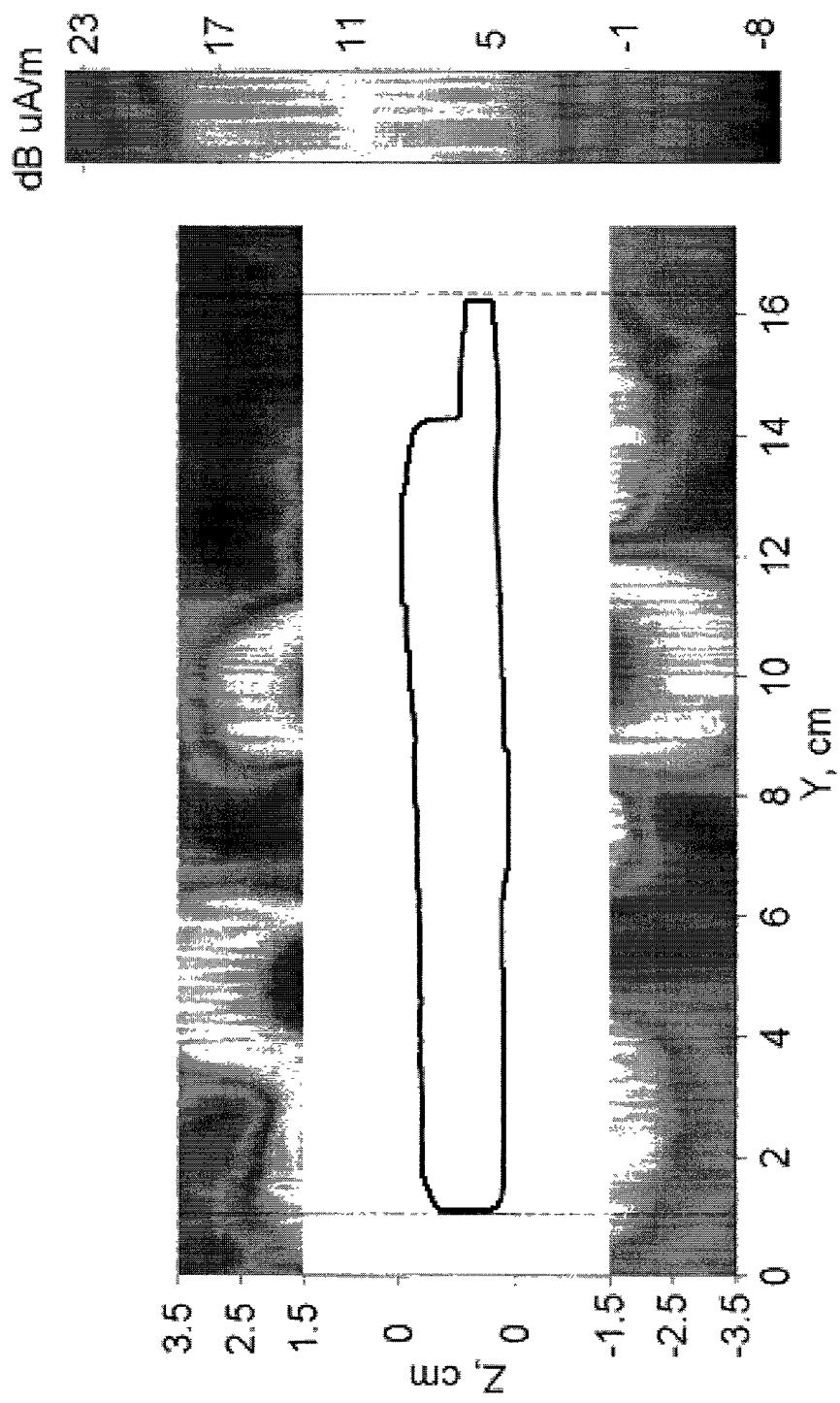


FIG. 93

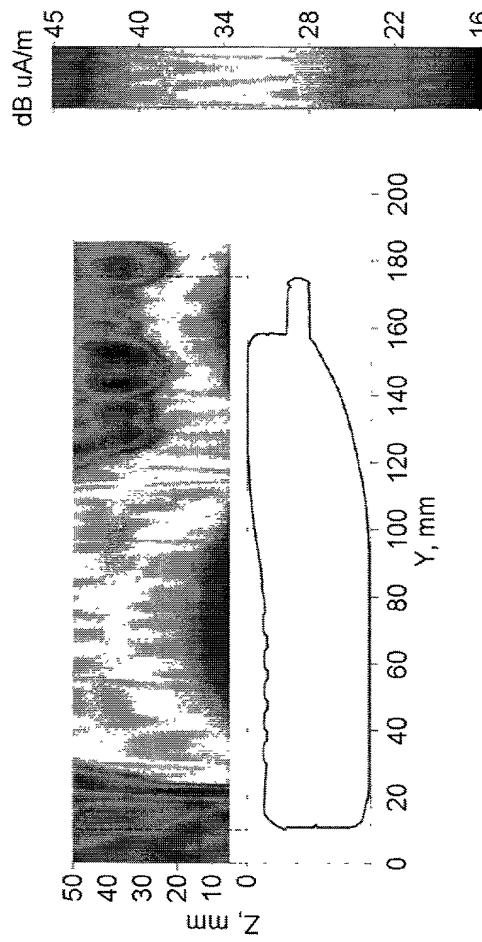
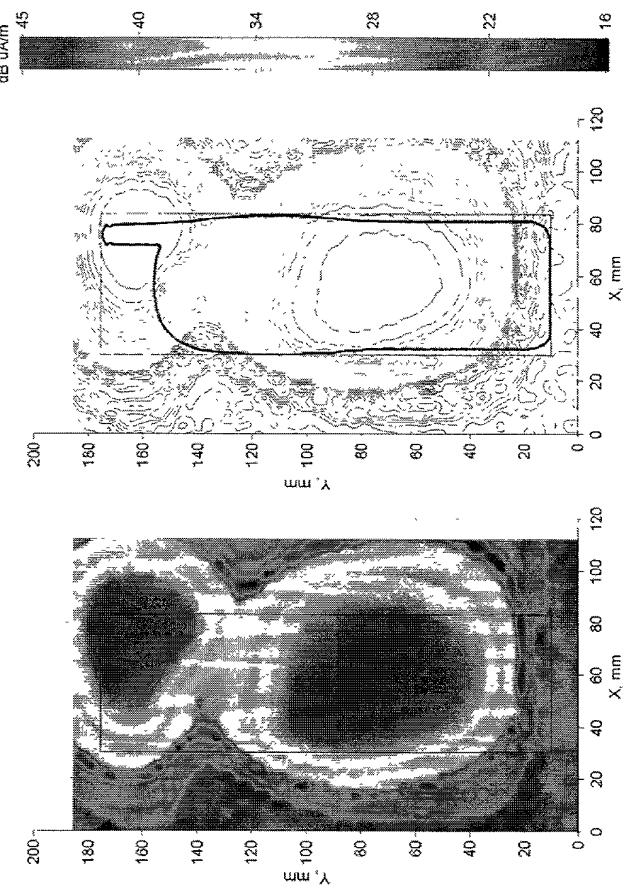


FIG. 94



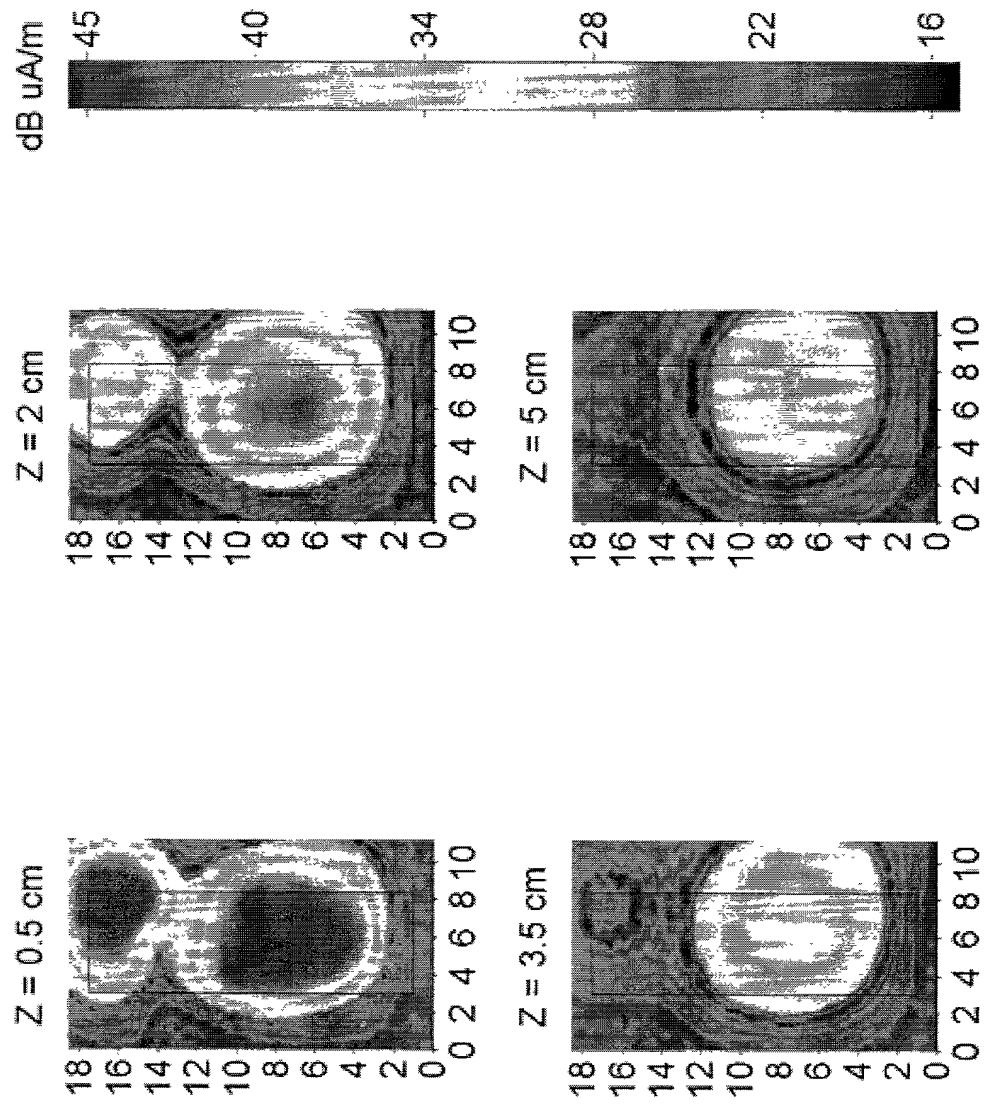


FIG. 95

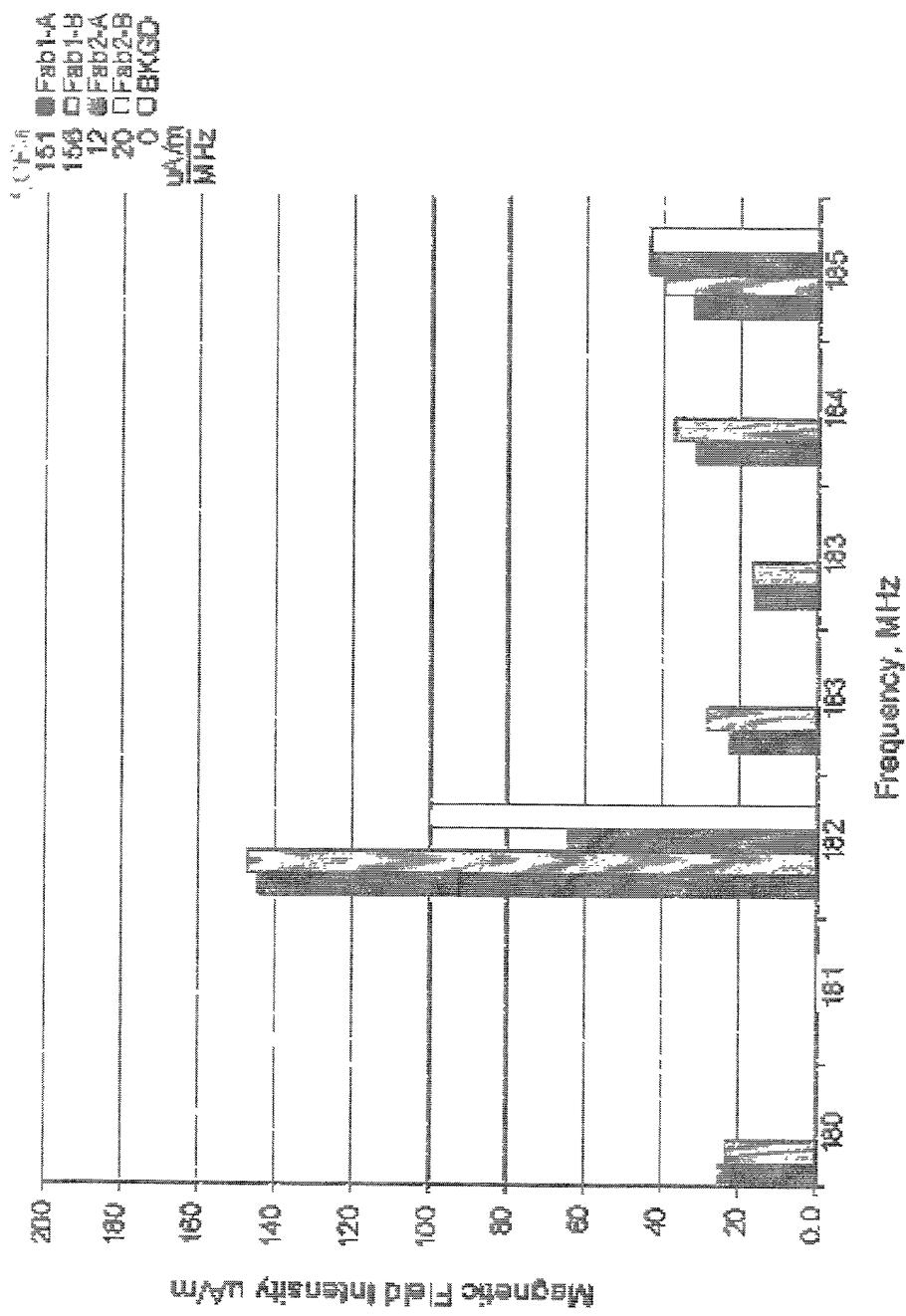


FIG. 96

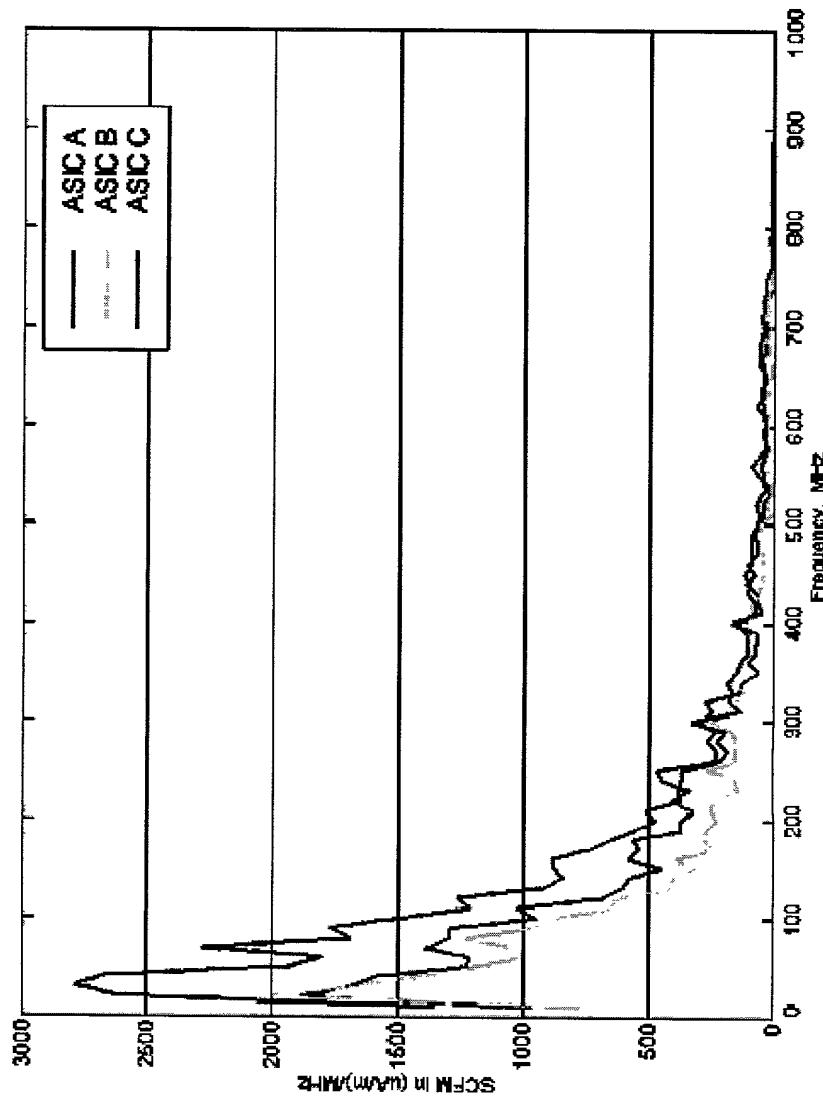


FIG. 97

optical image plane 600 nm 400 nm 300 nm 200 nm 100 nm 50 nm 25 nm 10 nm 5 nm 2 nm 1 nm 0.5 nm 0.25 nm 0.125 nm 0.0625 nm 0.03125 nm 0.015625 nm 0.0078125 nm 0.00390625 nm 0.001953125 nm 0.0009765625 nm 0.00048828125 nm 0.000244140625 nm 0.0001220703125 nm 0.00006103515625 nm 0.000030517578125 nm 0.0000152587890625 nm 0.00000762939453125 nm 0.000003814697265625 nm 0.0000019073486328125 nm 0.00000095367431640625 nm 0.000000476837158203125 nm 0.0000002384185791015625 nm 0.00000012020928955078125 nm 0.000000060104644775390625 nm 0.0000000300523223876953125 nm 0.00000001502616119384765625 nm 0.000000007513080596923828125 nm 0.0000000037565402984619109375 nm 0.0000000018782701492309554765625 nm 0.00000000093913507461547773828125 nm 0.0000000004695675373077388693359375 nm 0.00000000023478376865386943467196875 nm 0.0000000001173918843269347173359375 nm 0.00000000005869594216346735866796875 nm 0.0000000000293479710817336793359375 nm 0.00000000001467398554086683966796875 nm 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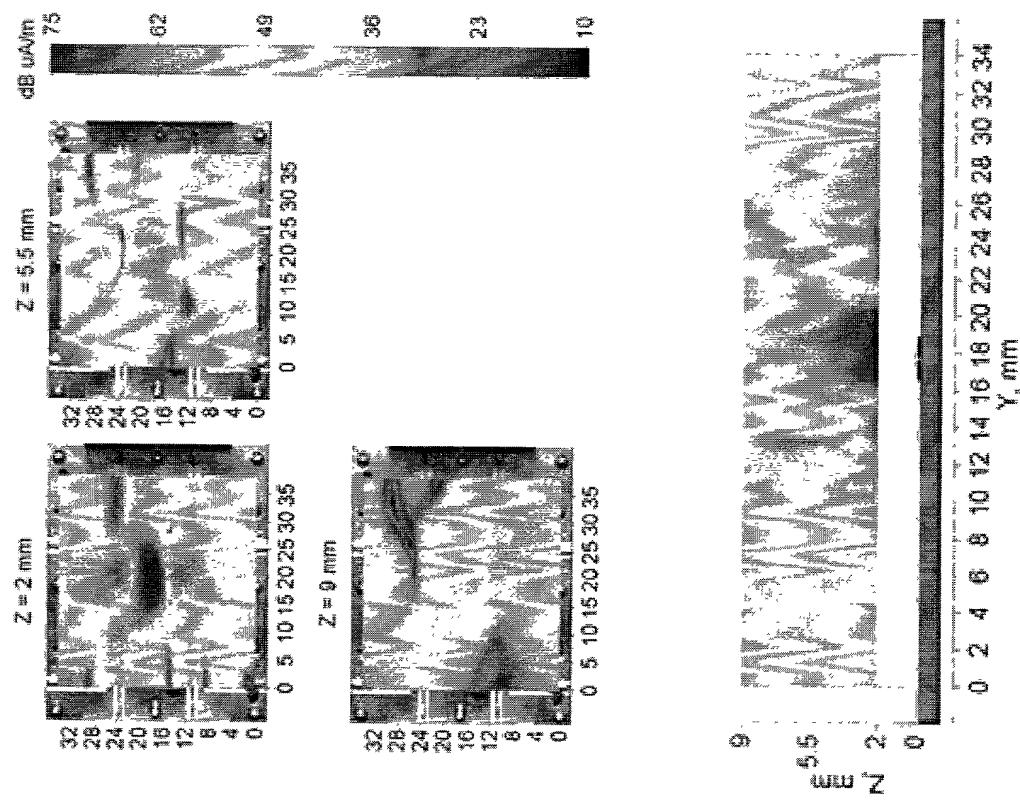
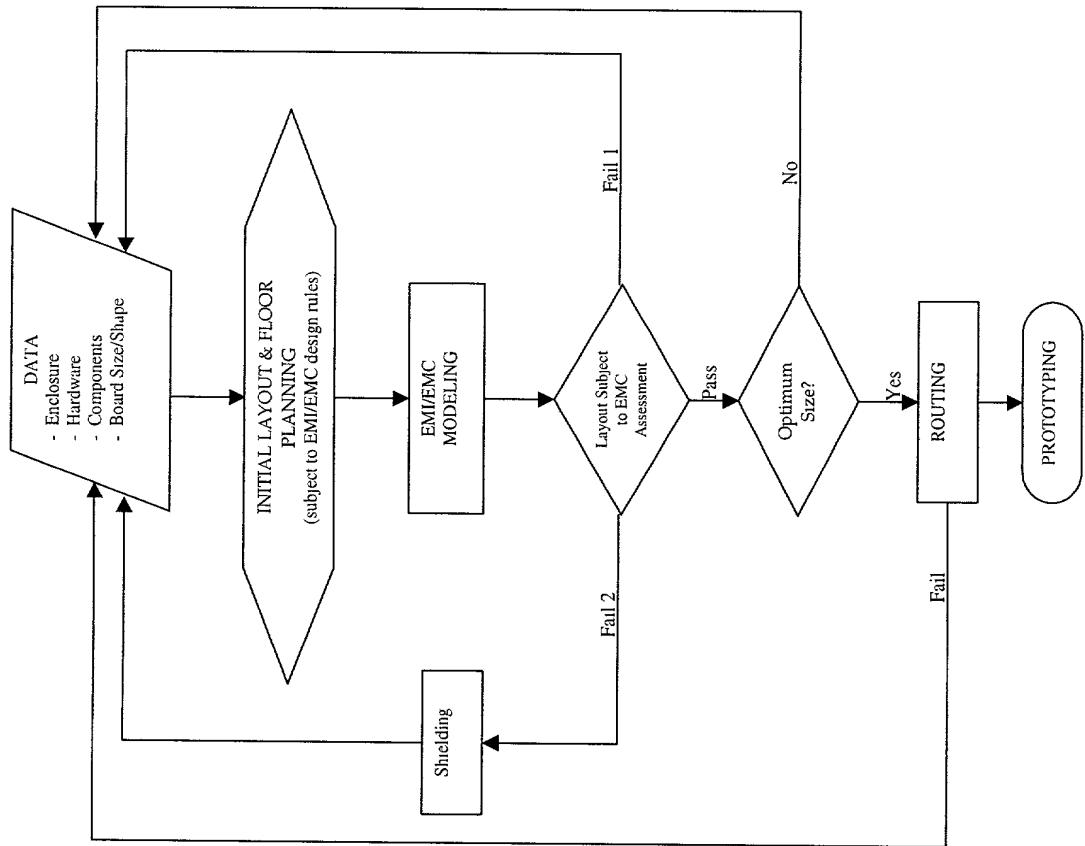


FIG. 99



**FIG. 100**